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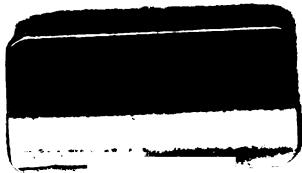
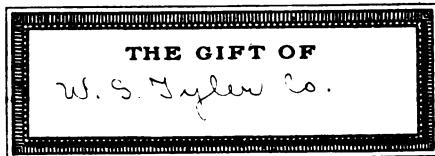
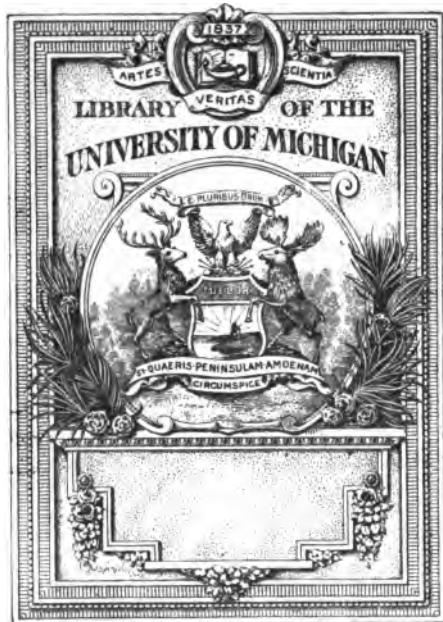
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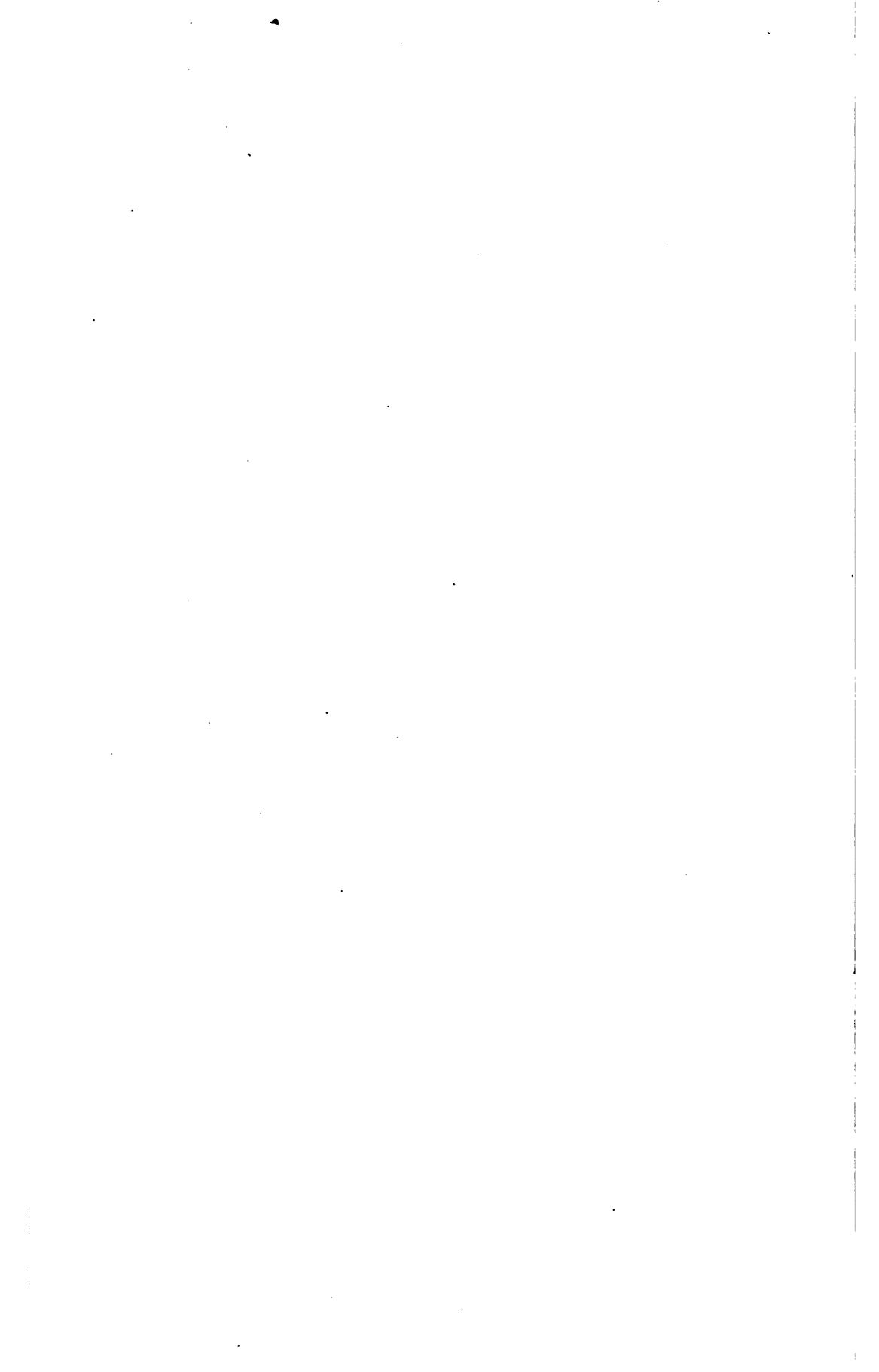
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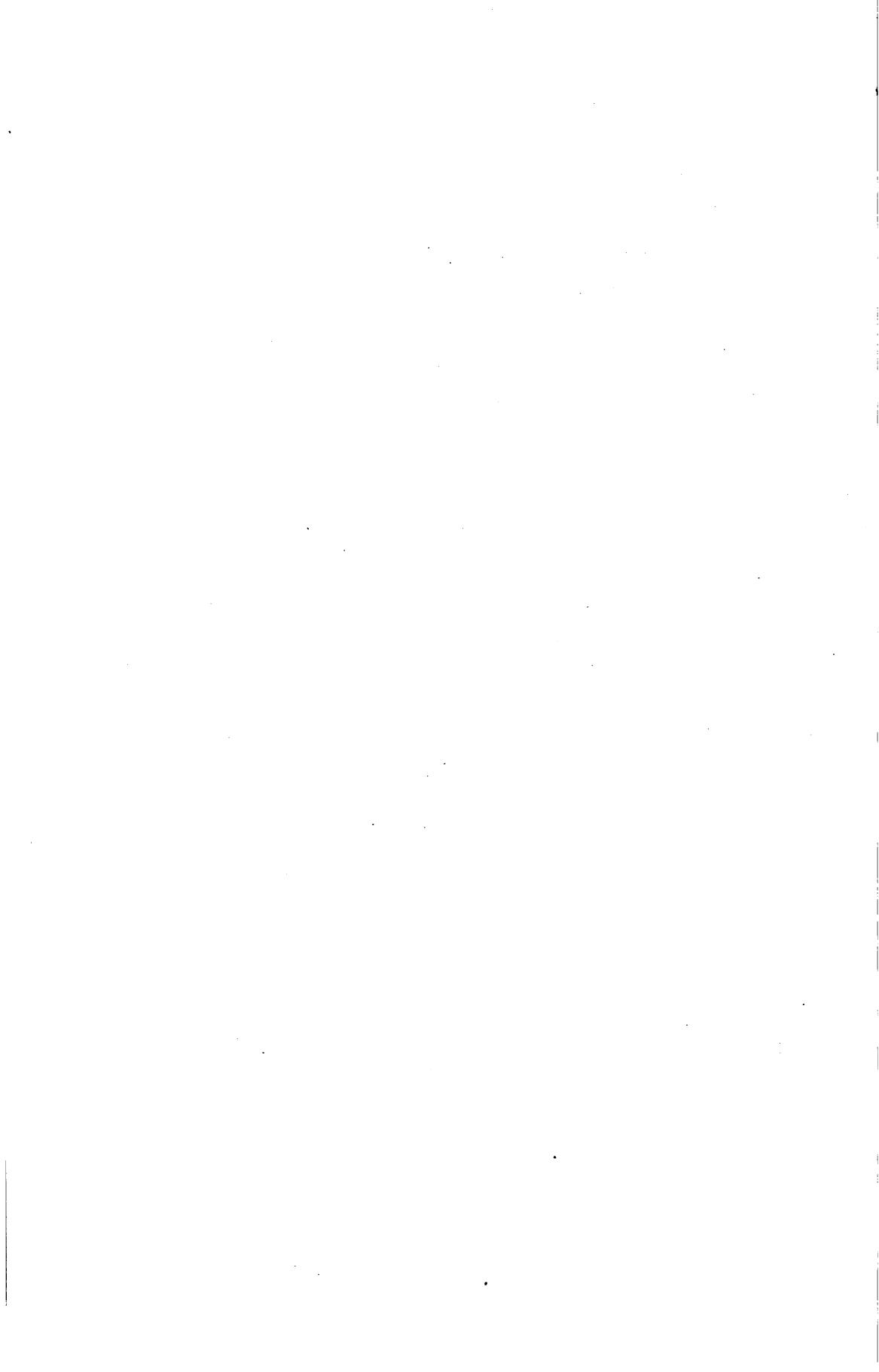




TS
213
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*The
W. S. Tyler
Company*



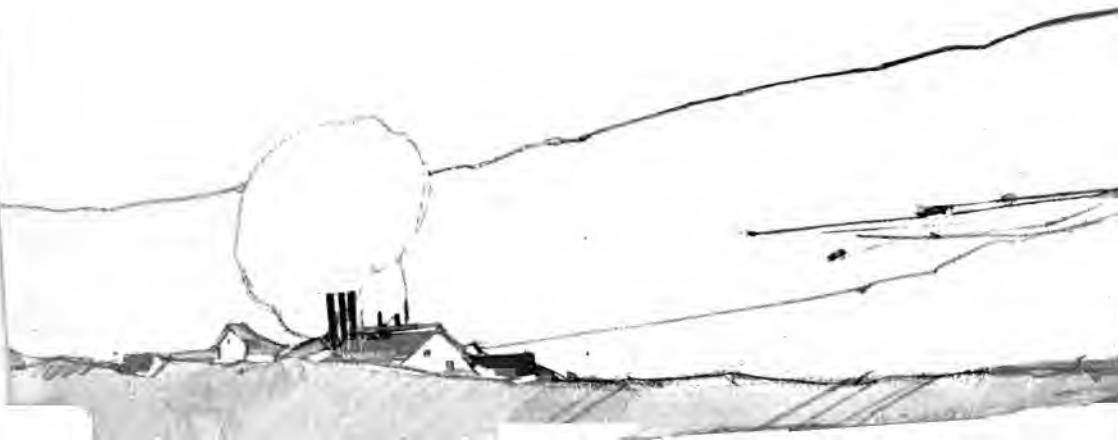


The



1872

W.S.TYLER COMPANY PLANT



The

W. S. TYLER COMPANY

Cleveland

Manufacturers of
**TON-CAP
SCREENS**

*made from iron, steel, brass,
copper and phosphor bronze
for all uses; also makers
of TYLER double crimped
cloth and mining screens.*

GENERAL OFFICES and WORKS
St. Clair Ave N.E. from 34th to 38th sts.
CLEVELAND, OHIO, U.S.A.



CATALOGUE No. 35

Copyright 1913 by The W. S. Tyler Company, Cleveland, Ohio

Ton-Cap Screens

TON-CAP is a screen with oblong openings especially designed to present the greatest possible discharging or screening surface. In this it represents what the name indicates, "tonnage-capacity," in handling screenable materials.

Like other Tyler products, TON-CAP is the result of building a screen by skilled labor and special treatment, especially adapted for the service required. Thus two important factors are combined in TON-CAP. It is a "tonnage-capacity" screen and a "quality" screen.

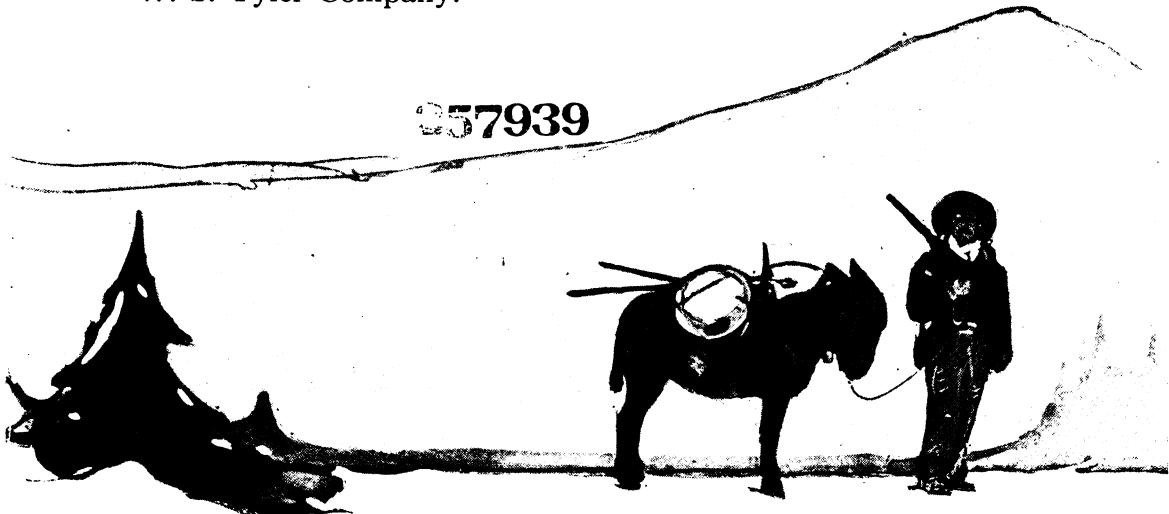
The TON-CAP idea is fast being established in the minds of screen users everywhere as there are large profits to be had from the additional tonnage produced by TON-CAP screen.

This book is issued with a view of assisting the user in applying TON-CAP screen to any particular service or to replace any other type of screen with TON-CAP.

A list of standard TON-CAP numbers is herein shown, but to secure a screen for a definite service, the best results are obtained by supplying the company with information that will enable them to co-operate in selecting a number best adapted for the work. One important reason why the company should be consulted about the selection of screen is because of the unusual shape of the openings, making it necessary to have data and records of TON-CAP sizing to compare with that of other screens.

TON-CAP screen is now used throughout the various countries of the world and every feature of it has been invented and introduced by The W. S. Tyler Company.

257939



20 N 13 C M

3mg 2
1-11-40
Revised

Profit in Tonnage Capacity

TON-CAP Screen will show increased tonnage-capacity and more profit by reason of its immense discharging surface — a larger volume of properly sized product will pass the screen in a given time with the same or less power energy.

Tonnage-Capacity are the "magic" words that have spelled SUCCESS for most of the big industrial enterprises in this country.

Now, if yours is a reduction problem wherein screens are employed, your profits are largely dependent on tonnage-capacity.

The Screens are the vital point in determining this tonnage. They determine the amount of product your crushing machinery can handle.

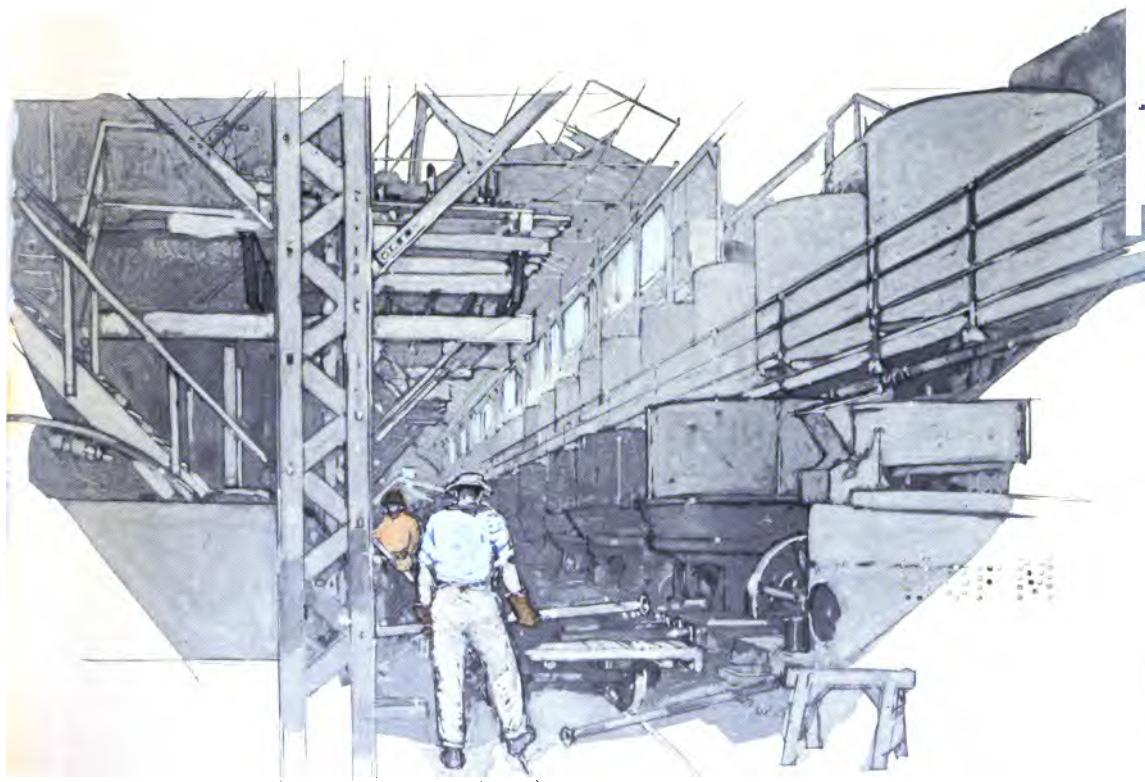
If the crushed particles cannot get through the screen as soon as they are reduced to the size of the screen opening, and so make room for more material, they reduce the tonnage that can be handled by the crusher.

If capacity means profit, then TON-CAP spells DIVIDENDS to all industries involving the sizing of products.

The increased capacity here does not mean the tearing down or re-equipping of mills; it does not even mean repair parts — just a mill supply — TON-CAP screen on the machinery now in use.

TON-CAP is all that the name implies — "TONNAGE-CAPACITY" and is being used wherever the full value of the largest possible output is realized.

*The W. S. Tyler
Company*



Discharge Area

THE illustrations at the top of the opposite page indicate the greater discharge area of the Tyler TON-CAP screen over punched sheet metal screens of the slotted type.

The No. 93 TON-CAP screen has .367 square inches of discharge area per square inch of screen. In one square foot of the screen there would be 53 square inches of discharge area. The No. 6 diagonal slot screen to produce the same size product has only .160 square inches of discharge area per square inch or 23 square inches of discharge area per square foot of screen. In other words, the No. 93 TON-CAP screen has 30 square inches per square foot, or 129 per cent more air space or discharge area than the No. 6 diagonal slot screen. The small squares on the opposite page showing .367 square inches and .160 square inches are drawn to scale and indicate the relative amount of discharge area per square inch in each of these types of screen.

The efficiency of TON-CAP screen depends primarily on its immense discharge area — the blank surface being reduced to a minimum. In TON-CAP screen this capacity is obtained without sacrificing the life of the screen. Every hole punched in a sheet of metal weakens it just that much — the closer the opening, the weaker the screen. In woven wire, the strength of the wire is not impaired in weaving but in a given size of wire, the closer the openings the stronger the screen becomes.

*The W.S. Tyler
Company*

Comparison of Discharge Area

Width of Slot .027-Inch

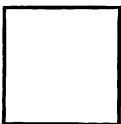


No. 93 TON-CAP
.367 Sq. In. Discharge Area per Sq. In.
53. Sq. In. Discharge Area per Sq. Ft.

Width of Slot .027-Inch



No. 6 DIAGONAL SLOT (25 Mesh)
.160 Sq. In. Discharge Area per Sq. In.
23. Sq. In. Discharge Area per Sq. Ft.



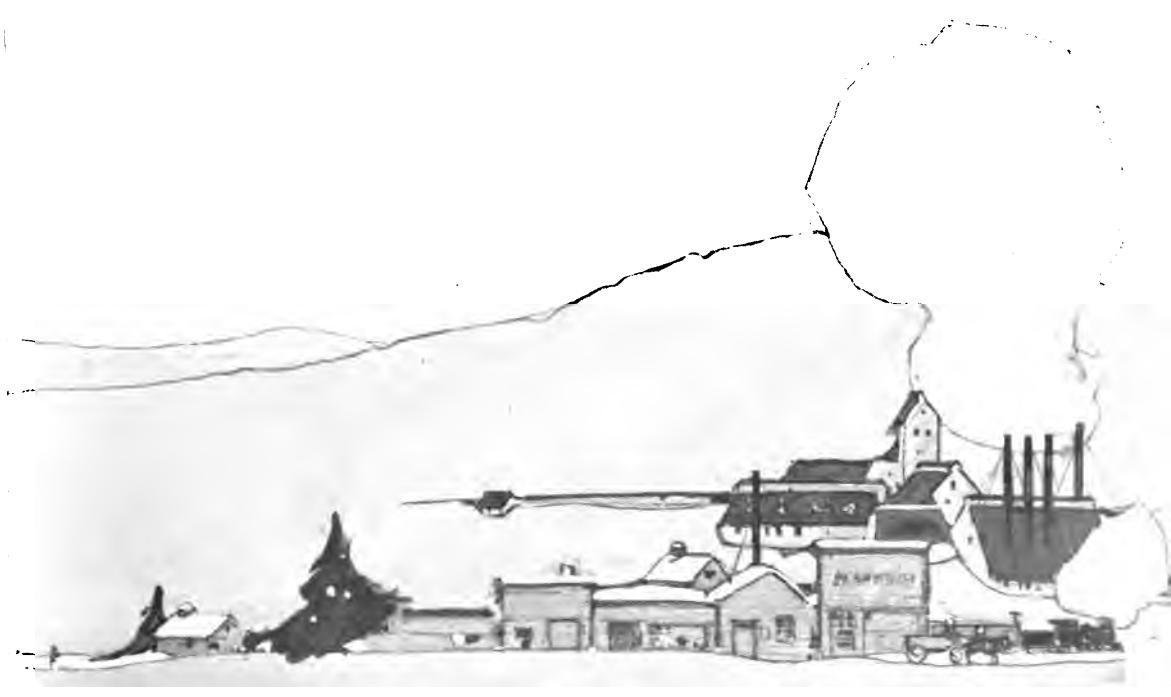
.367 Sq. In.
Discharge Area in
1 Sq. In.



.180 Sq. In.
Discharge Area in
1 Sq. In.

No. 93 TON-CAP has 129 per cent more air space or discharging area than No. 6 Diagonal Slot to produce the same sized product.

In one square foot of screen No. 93 TON-CAP has 30 square inches more of air space than the Diagonal Slot Screen.



Discharge Area

THE illustrations at the top of the opposite page indicate the greater discharge area of the Tyler TON-CAP screen over punched sheet metal of the round-hole type.

In the illustration on the opposite page, the No. 38 TON-CAP screen has a discharge area of .420 square inches per square inch of screen or 60.5 square inches of discharging area per square foot, as against a 3 millimeter round hole perforated plate to produce the same size product, with .219 square inches discharge area per square inch of screen or 31.5 square inches discharge area per square foot. This is a difference in favor of No. 38 TON-CAP screen of 29 square inches of discharge area per square foot of screen or 92 per cent more than is found in the perforated plate.

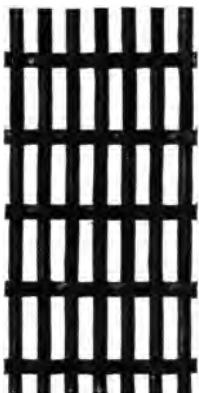
The small squares drawn to scale representing the .420 square inches and .219 square inches of discharge area will picture to the eye the advantage of using TON-CAP screen where capacity is desired.

The efficient screen is the one that will let the material through—not hold it back with blank metal. TON-CAP has the largest proportion of discharging surface of any screen made and so will permit the most rapid passing of particles that will go through the screen openings.

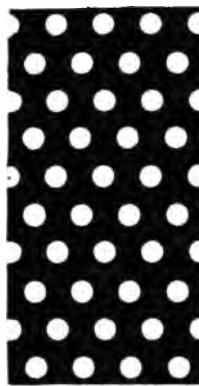
From these figures and illustrations, it will easily be seen why TON-CAP screen has replaced perforated metal wherever capacity is the important feature in handling products to be screened.

*The W.S. Tyler
Company*

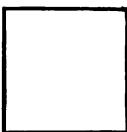
Comparison of Discharge Area



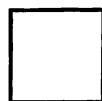
No. 38 TON-CAP
.420 Sq. In. Discharge Area per Sq. In.
60.5 Sq. In. Discharge Area per Sq. Ft.



3 MM. ROUND HOLE
.219 Sq. In. Discharge Area per Sq. In.
31.5 Sq. In. Discharge Area per Sq. Ft.



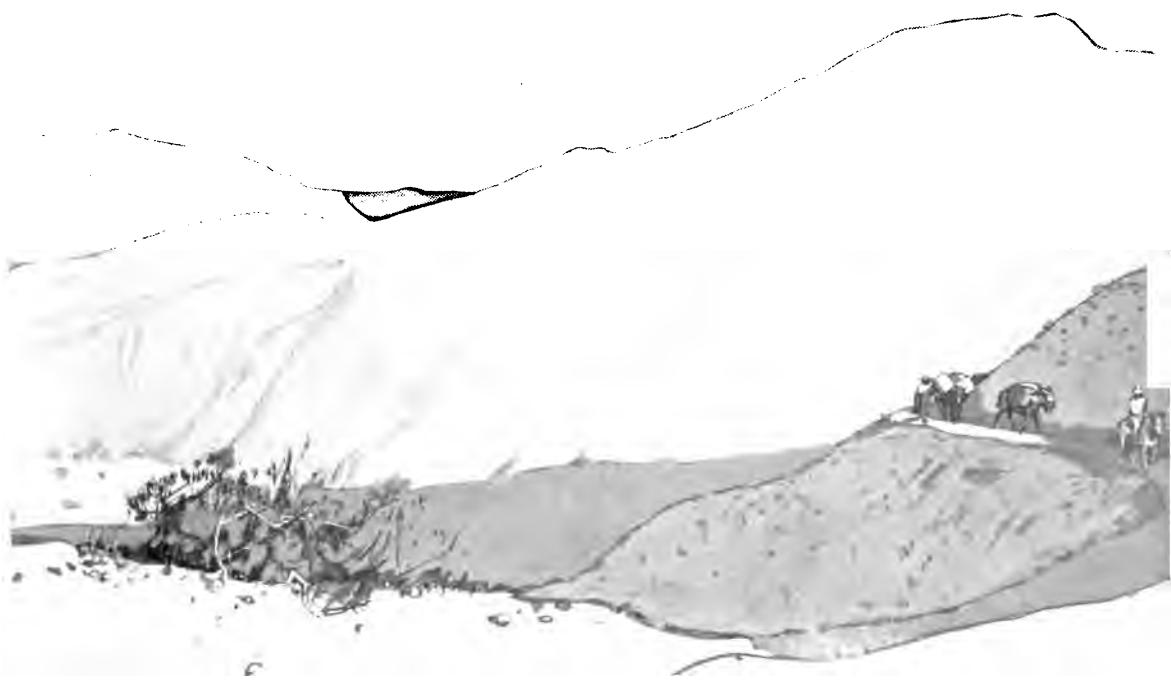
.420 Sq. In.
Discharge Area in
1 Sq. In.



.219 Sq. In.
Discharge Area in
1 Sq. In.

No. 38 TON-CAP has 92 per cent more air space or discharging surface than 3 mm. Round Hole to produce the same sized product.

In one square foot of screen No. 38 TON-CAP has 29 square inches of air space more than the punched metal.



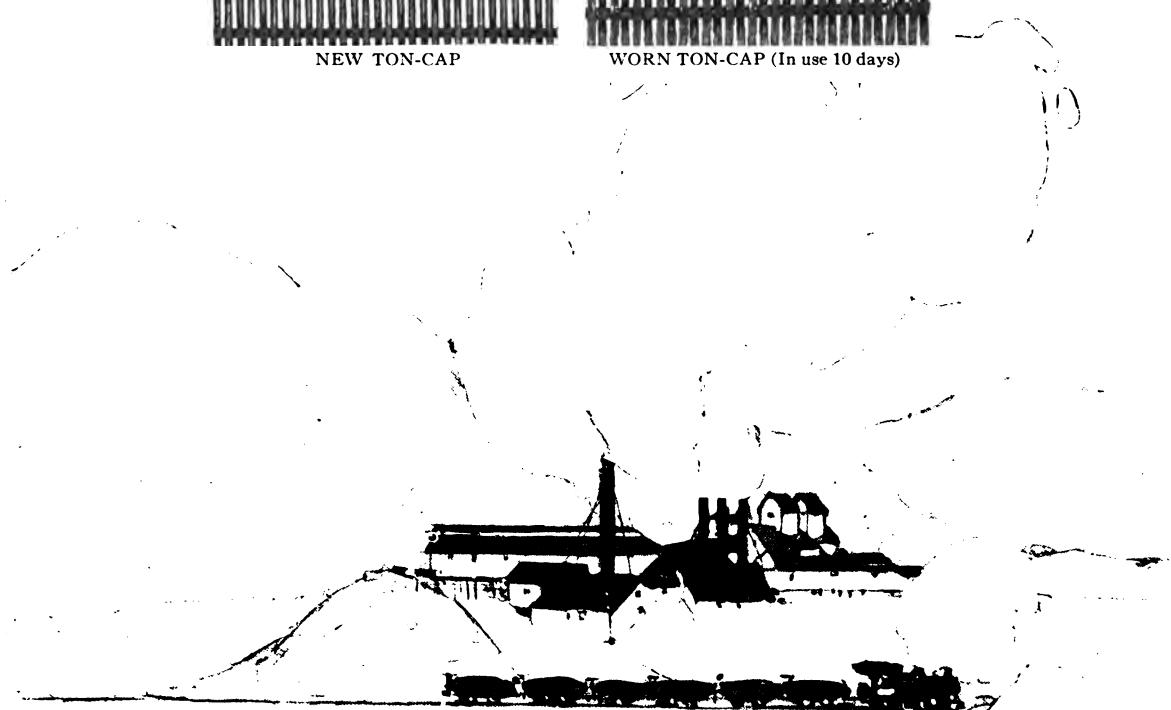
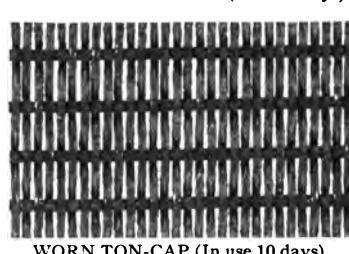
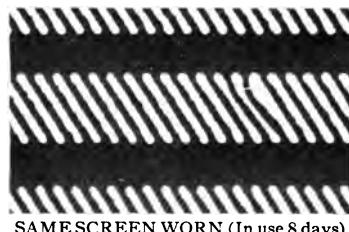
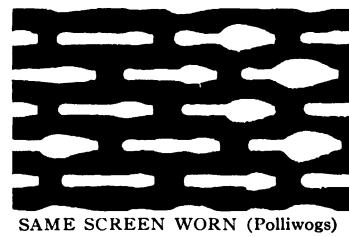
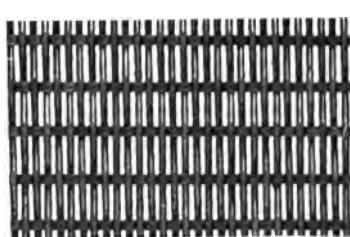
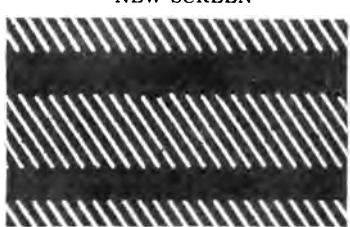
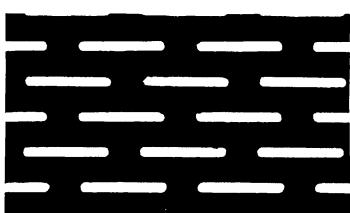
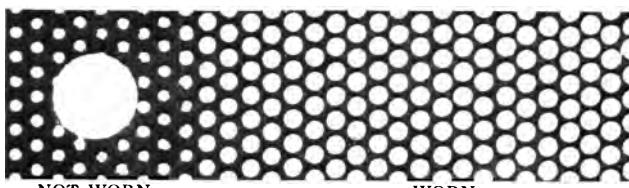
Effect of Screen Wear on Sizing

THE effect of wear on TON-CAP screen as compared with perforated sheets is illustrated on the opposite page. These illustrations show reproductions of actual specimens as they were found before and after using.

The illustration at the top of the page is especially interesting as it shows that the round hole opening before the screen was discarded wore to more than twice the size of the original opening. Then too, in the second illustration from the top of the page, the effect of wear is shown on oblong opening perforated screens. The openings in the perforated metal present a raw cut surface which is easily worn away by the material being screened. This wear produces large polliwog-shaped openings which allow coarse particles to pass the screen. Each day these openings increase and the sizing becomes steadily larger and more irregular. The lower illustration on the opposite page will show the advantage of TON-CAP screen in this connection because the openings remain practically the same throughout the screen life. The abrasion is practically all on the surface of the screen and not between the wires; the process of drawing the wire produces a smooth hard surface, which resists abrasion, so that the material passing the screen does not wear away the wire to any considerable extent, therefore, the spaces between the wires of TON-CAP do not enlarge perceptibly while the screen is in service.

The effect of screen wear on sizing is very apparent and the first consideration in securing uniform sizing is the selection of a screen in which the size of opening does not vary greatly during the life of the screen.

*The W. S. Tyler
Company*



Ton-Cap to replace Round Hole Opening Screen

BY THE selection of a TON-CAP screen with the proper width of slot, the same sizing can be produced as with round hole punched screen.

Many experiments with these two types of screen have been made in handling various materials, and the screen analysis has shown that the same sizing is produced by either the round hole or the relative oblong opening in the TON-CAP screen.

While the analysis showed the range of particles of about the same size, there was this difference — where the tests were made on stamps or rotary crushers, it was found that the TON-CAP product showed a larger percentage in the middles; that is, there were less fines or slime, due to the larger screening area of the TON-CAP screen. Where the sizing tests were made on trommels, the range in the size of particles was the same but it was found that the TON-CAP screen had made a much more thorough separation; that is, the product had been screened much cleaner, all of the fine material having passed the screen, whereas in the product obtained with the perforated plate, there were considerable fines in the product that had passed through the trommel due to the larger amount of dead surface in the screen.

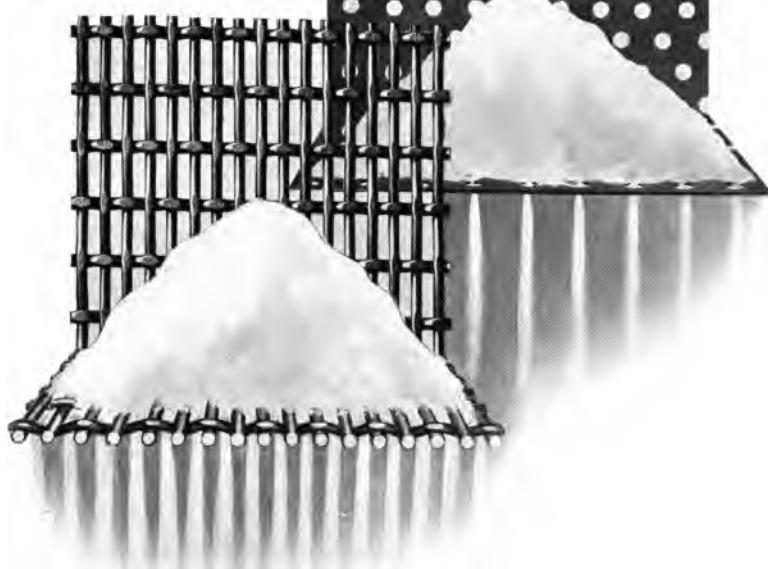
The illustration on the opposite page shows that more material will pass the TON-CAP screen with the oblong opening within a given time than will pass a round hole screen producing the same sizing.

*The W. S. Tyler
Company*

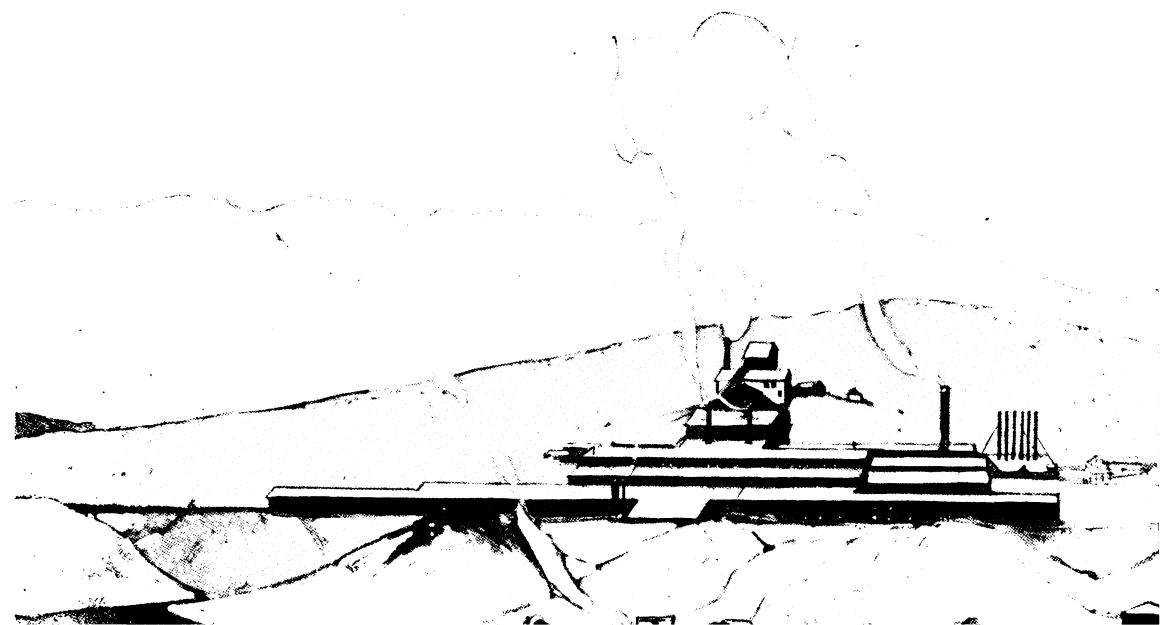
$\frac{3}{4}$ mm. Round Hole. .251 sq. in.
air space per sq. in.



No. 42 TON-CAP
.410 sq. in. air space in 1 sq. in.



Illustrating Capacity of Ton-Cap



Testing Laboratory

SCREEN troubles are the big leaks in production expense. To locate screen troubles and remedy them is the mission of the Tyler Laboratory, and this service is for any user of screens, without fee.

The equipment of this department enables a test with the actual screen in question in every instance, so that conclusions can be made in recommending screen to produce a given sizing.

A sample of product to be screened, also a small sample of the screened product, showing the required fineness, may be sent to this laboratory for testing the sizing by screen analysis and the selection of the number of TON-CAP screen to produce that sizing.

In making tests with reference to fineness, a complete screen analysis is made using the Tyler Standard Screen Scale testing sieves and a full report of such tests will be willingly submitted to the screen user.

Under the old method, the screen user had to do the experimenting in the mill, going to the expense of testing various screens until something was found that would produce the desired result. The Tyler Laboratory, however, can save much of this expense, being equipped with sections of screen covering more than two thousand varieties. These vary in mesh, metal, diameter of wire and material.

A screen selected by laboratory test may not meet all the conditions in actual practice but in the screen chosen for the work, the element of sizing can be brought to a very close proximity of what is required.

*The W. S. Tyler
Company*



A Corner of the Tyler Testing Laboratory



Ton-Cap Screen for any use

TON-CAP screen is supplied to all industries for use in screening any material, wet or dry. It is therefore not necessary to mention the various products it will handle, for it is now being used successfully on all materials that are screened.

In ordering TON-CAP for any service, it is important to state how it is to be used and the kind of material that is to be screened. Furthermore, it is necessary to describe explicitly the type of screen it is to replace, stating size and shape of openings, thickness of wire or metal. Better still, accompany the order with a small sample of the screen in use — then TON-CAP can be selected to produce the same sizing.

Each TON-CAP screen is designated by a number to avoid complicated details in ordering, therefore, this number should be used on repeat orders.

TON-CAP cannot be supplied in rolls but is cut in sections the size of screen frames in order to accommodate the rolling process. For instance, an order may read: "20 pcs. 5' 6" x 36" No. 77 Steel TON-CAP."

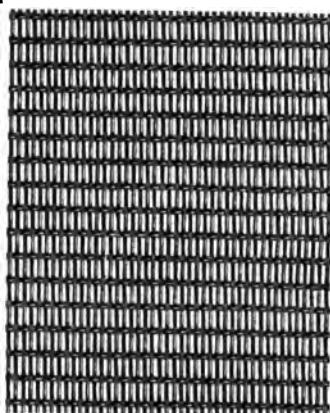
TON-CAP can be selected with discharge area to show a very great increase in tonnage over other types of screen.

Correspondence is invited covering any information with reference to the use or selection of TON-CAP for any service.

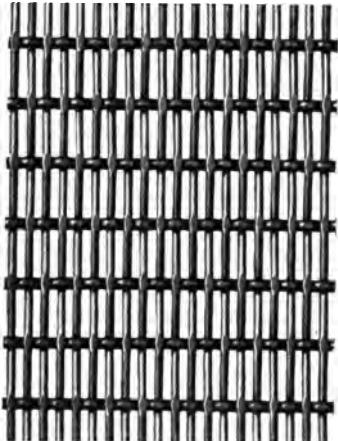
*The W. S. Tyler
Company*



No. 22 TON-CAP



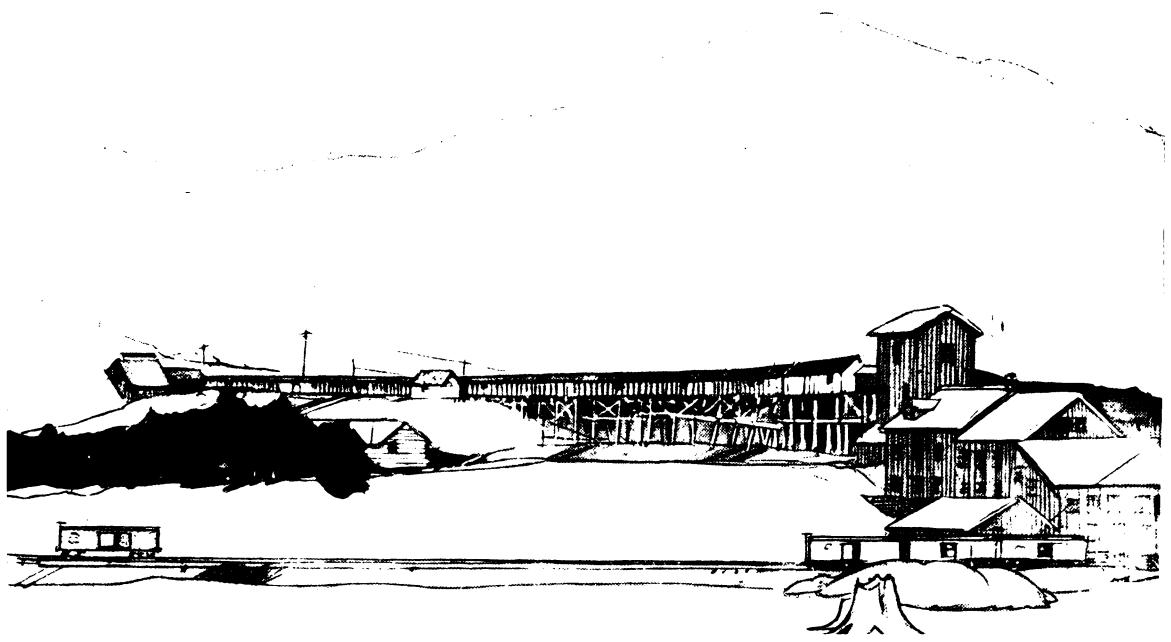
No. 145 TON-CAP



No. 63 TON-CAP



No. 38 TON-CAP



Ton-Cap for Stamp Battery Screens

THE selection of screen for a stamp battery is very important because the tonnage produced through different types of screen varies widely. To secure a screen that will produce the maximum tonnage at the point in sizing that shows the highest extraction is the result that means the greatest profit in operating a stamp mill.

From test runs which are responsible for the wide use of TON-CAP in stamp mills, it has been proven time and again that the maximum tonnage can be produced through TON-CAP screen, furthermore, it is accomplished with equal or better extraction than can be secured from other types of screen.

Another important feature is in the sizing produced by TON-CAP screen, as the screen analysis shows that a greater volume of the sands will be nearer the point of best extraction. There will be less fines or slime because the particles pass the screen when reduced to size of opening instead of being thrown back to be recrushed.

In ordering TON-CAP for a stamp battery the following information is necessary to secure the most efficient service:

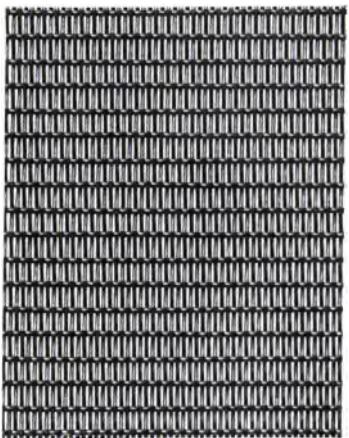
State height and width of sections as TON-CAP cannot be furnished in full rolls. For instance, an order may read:

"40 pcs. 12" x 52" No. 93 Steel TON-CAP Screen."

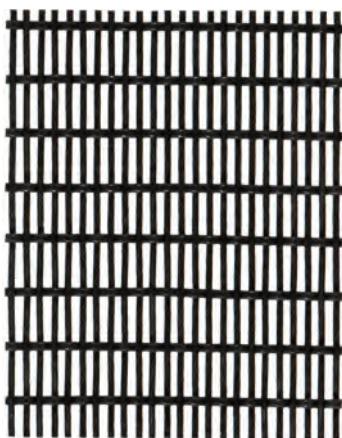
Send a sample of the screen in use where TON-CAP is ordered to produce the same sizing and show an increase in capacity.

Specify the TON-CAP number on repeat orders.

*The W. S. Tyler
Company*



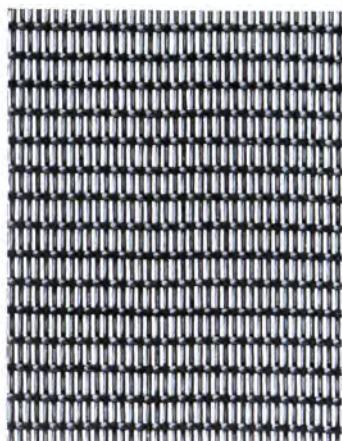
No. 159 TON-CAP



No. 277 TON-CAP



No. 44 TON-CAP



No. 330 TON-CAP



Ton-Cap for Chilian Mill Screens

A MAJORITY of the Chilian mills operated in the United States at the present time are clothed with TON-CAP screen. Naturally there are important reasons for such general adoption of TON-CAP for Chilians, and the first is the greater tonnage that passes through the screen per day. Second, the more uniform sizing and the less tendency to slime. Third, the less horse power required to operate the mill when clothed with TON-CAP. This latter statement has been proven by the meter records in a comparative test where the Chilians were run by electric power.

These advantages are of such importance that wherever Chilian mills are employed, TON-CAP screen should be used. The Company will gladly supply any information that will assist in selecting a screen that will show the greatest returns.

When ordering TON-CAP screen for Rotary mills of this type, it is well to observe the following:

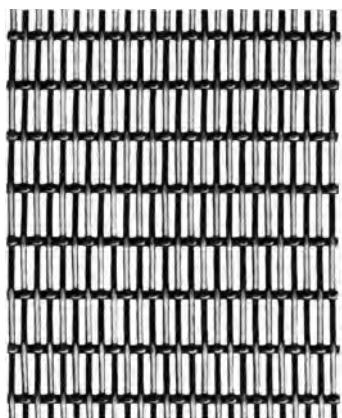
Accompany the order with a template of the screen frames showing how the sections should be cut to fit the frames, as TON-CAP cannot be furnished in full rolls.

Send a sample of the screen in use with the order where TON-CAP is to replace another type of screen. For instance, an order may read:

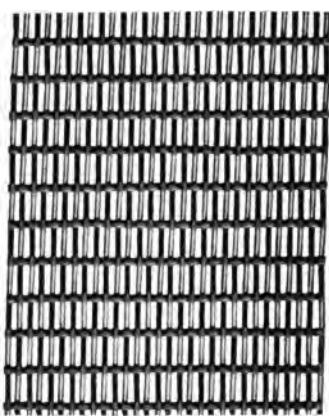
"100 pcs. Steel TON-CAP Screen as per template attached, to produce equivalent sizing to 1½ mm. round hole perforated screen, as per sample mailed under separate cover."

All TON-CAP screen is designated by number to avoid complicated specifications in ordering, and this number should be stated on repeat orders.

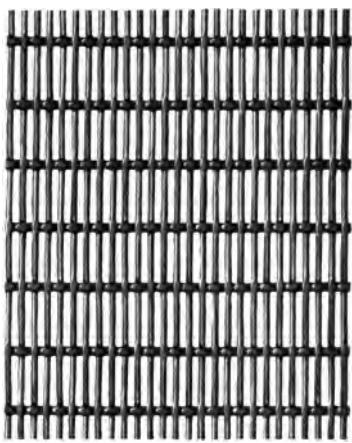
*The W. S. Tyler
Company*



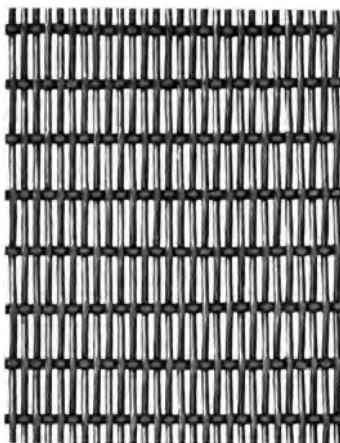
No. 77 TON-CAP



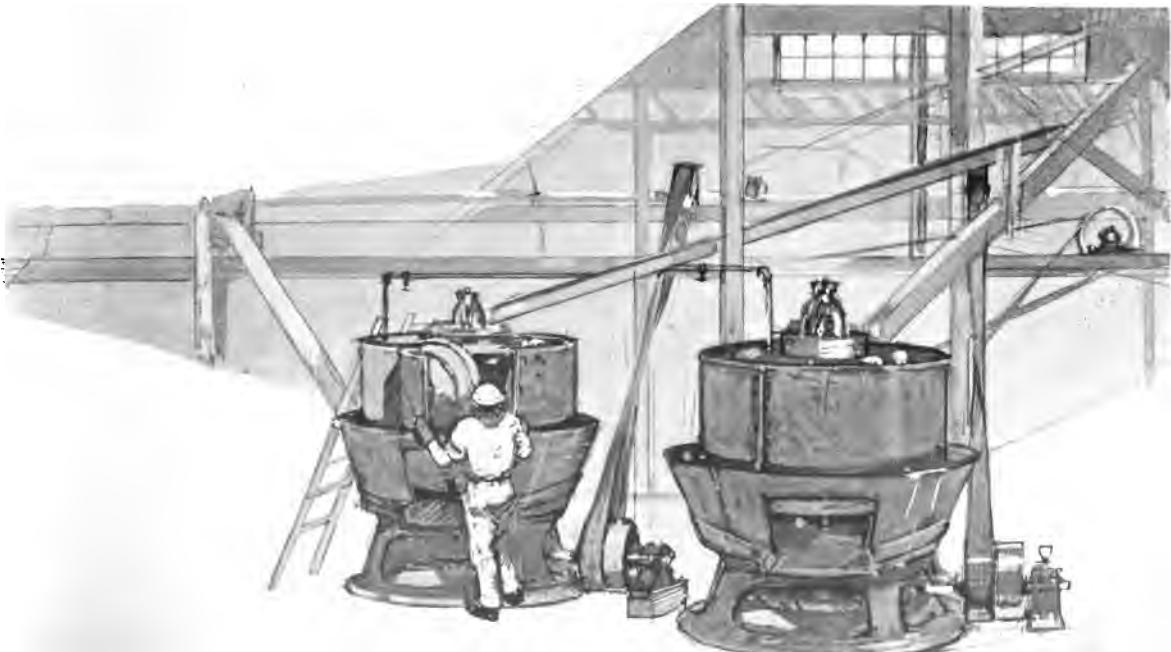
No. 93 TON-CAP



No. 352 TON-CAP



No. 260 TON-CAP



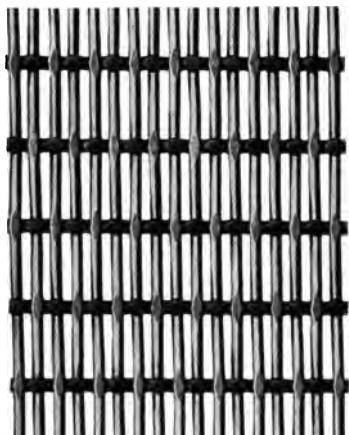
Ton-Cap for Huntington Mill Screens

IT IS very necessary to state on the order that the screen is to be used for Huntington Mills for the wear on the screens is very severe. While a strong screen is required, it is also very necessary that the screen have a very large discharging surface or screening area in order that the mill may show a satisfactory output. The amount of screen surface in a Huntington Mill is very limited and it is therefore essential that the dead surface be reduced to a minimum and at the same time have a screen of sufficient strength to show life.

The conditions to be met can best be handled by TON-CAP screen for the reason that the tonnage-capacity produced through this type of screen is always greater than through any other type. TON-CAP screen on a Huntington Mill will produce uniformity in the sizing; that is, the screen product would show about the same range in sizing as from other types of screen but there would be this difference—the TON-CAP product will have a larger per cent in the middle sizes, that is, there will be less fines or slime due to the larger screening area of the TON-CAP. Where the material to be screened is inclined to slime, the TON-CAP screen will be a special advantage because the particles will pass the screen as soon as they are reduced to the size of the screen opening instead of striking dead surface and being thrown back to be re-crushed.

As TON-CAP cannot be furnished in rolls, please specify the length and width of the section which is required to fit the screen frame.

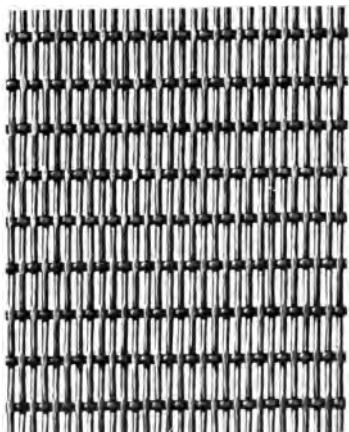
*The W. S. Tyler
Company*



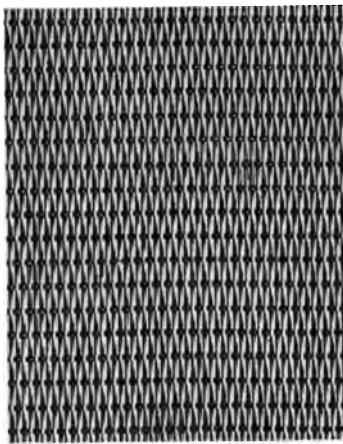
No. 57 TON-CAP



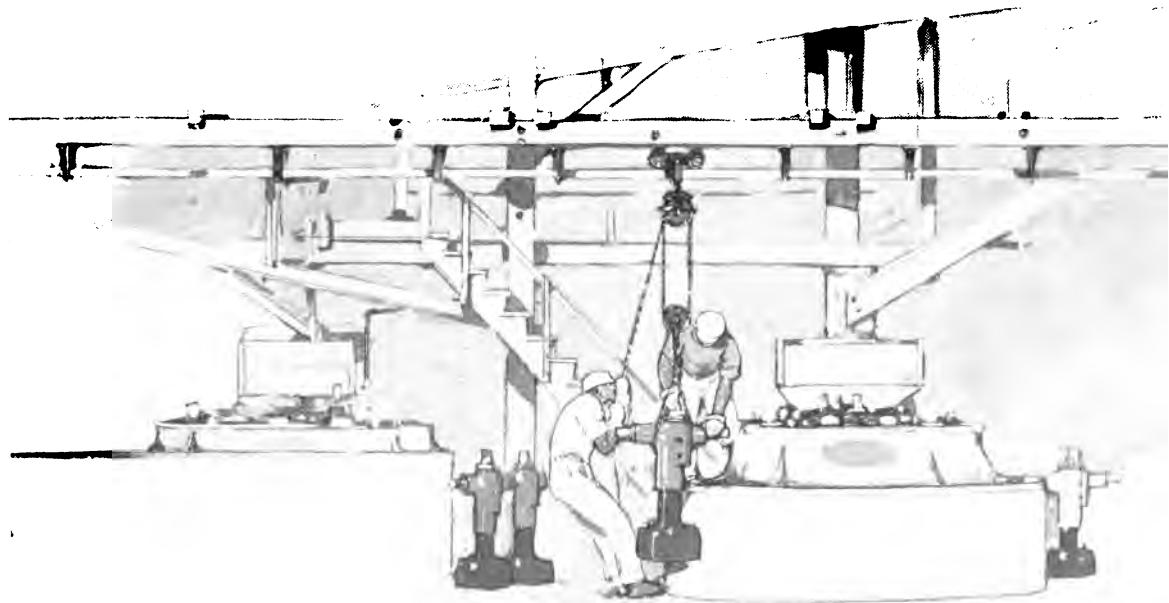
No. 351 TON-CAP



No. 615 TON-CAP



No. 163 TON-CAP



Ton-Cap for Trommel or Revolving Screens

IN TIMES past it has been a very difficult matter to secure a satisfactory screen for trommel work. Often a thick, heavy perforated plate was used with a view of withstanding the severe wear, but the tonnage-capacity of the trommel is seriously reduced by the use of such a screen.

The importance therefore, of developing a TON-CAP screen for this service was apparent and the problem has been solved so satisfactorily, that many patrons are reaping the benefits from the use of TON-CAP for this work.

Not only can TON-CAP be supplied to show satisfactory wear but the important features of greatly increased tonnage-capacity and a more thoroughly screened product are found in the results of using TON-CAP for trommel work.

After a test of this kind, the following report was received from one screen user:

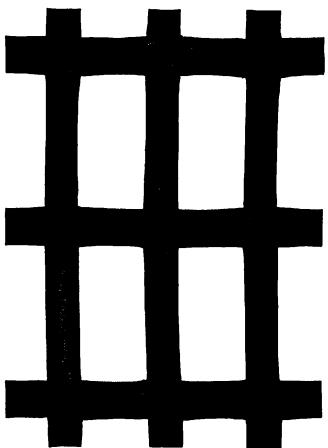
"The TON-CAP screen sent to take the place of the one millimeter round hole perforated metal is showing longer life and one trommel with three sections of TON-CAP does the work of six sections of punched plate."

Orders for heavy TON-CAP screens should show diameter of trommel or revolving reel so that they may be formed to circle.

The following will illustrate an order for trommel screens, giving complete information:

"25 pcs. Steel TON-CAP Screen 36" wide, to cover 3' diameter trommel screen, allowing 5" lap, to replace 3 mm. round hole punched screen."

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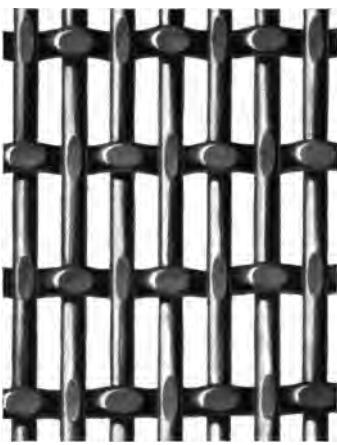
No. 451 TON-CAP



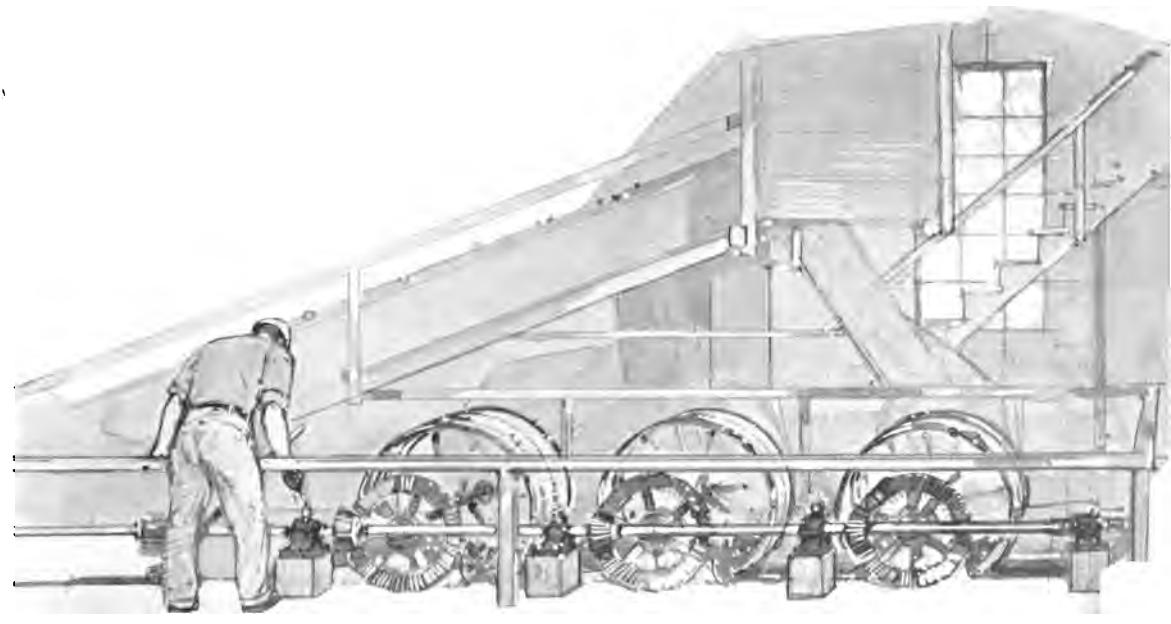
No. 390 TON-CAP



No. 368 TON-CAP



No. 23 TON-CAP



TON-CAP for Traveling Belt Screens

TNUSUAL skill is required to produce screen that will meet the requirements when used as a traveling belt.

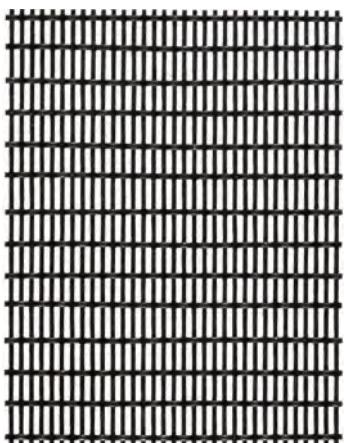
The Company has had a great many years experience in building screens of this character prior to the invention of TON-CAP, therefore, it is easy to understand why TON-CAP screen has so readily been applied to this service.

TON-CAP screen for traveling belts will not only show longer life but greater general efficiency than other screens for this work. Naturally, the tonnage-capacity will be greater than that of other screens and the sizing equally as satisfactory.

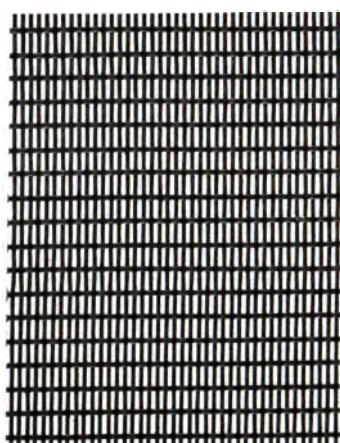
Where TON-CAP is to replace square mesh wire cloth for traveling belt screens, the mesh and size of wire in present use should be mentioned in the order. All TON-CAP screen is designated by number and on repeat orders, this number should be specified. It is also well to remember that in ordering TON-CAP screen for traveling belts, the length and width of the belt should be stated. TON-CAP is never supplied in rolls because the rolling process cannot accommodate long lengths. For instance, an order may read:

"8 pcs. 13' x 24" phosphor bronze TON-CAP to give equivalent sizing to 30 mesh .0135" square mesh brass wire cloth."

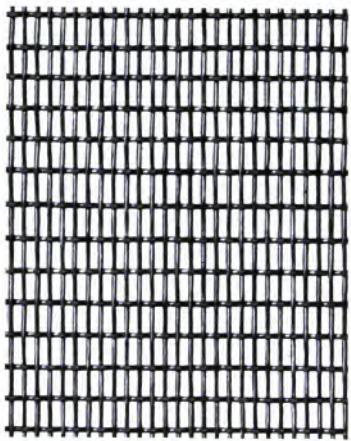
*The W. S. Tyler
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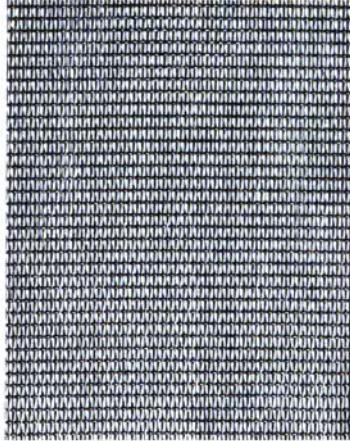
No. 695 TON-CAP



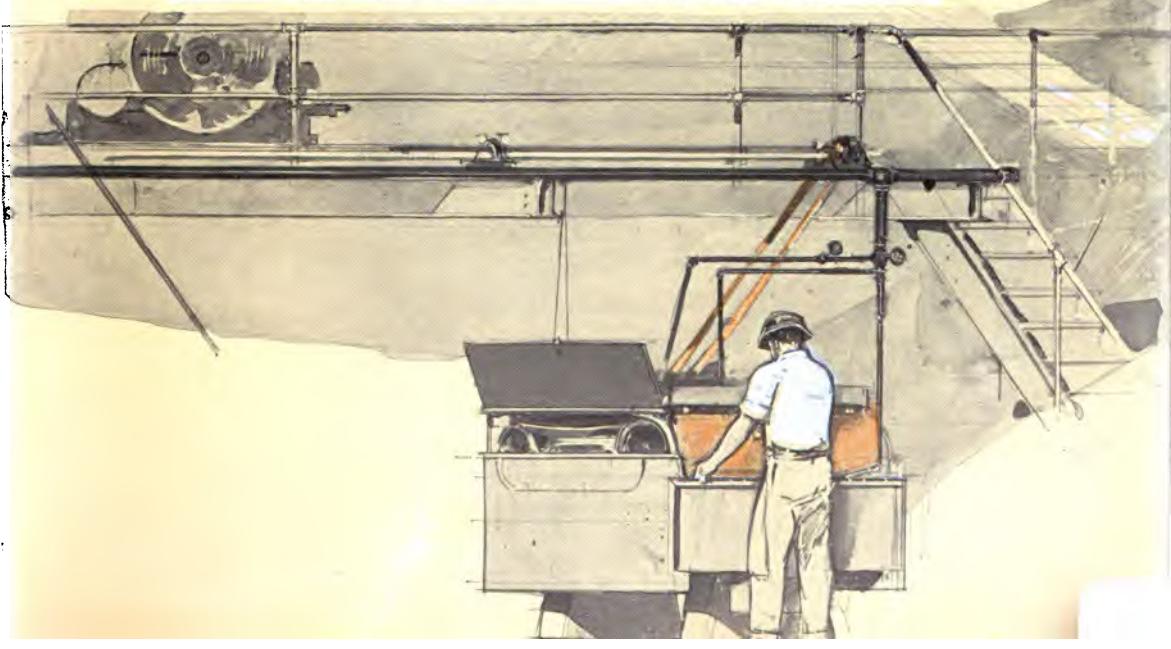
No. 535 TON-CAP



No. 359 TON-CAP



No. 190 TON-CAP



Ton-Cap for Vibrating, Shaking and Jig Screens

A CONSIDERABLE amount of discharge area is usually lost on vibrating screens because of the angle at which they are placed. It is to overcome this difficulty that TON-CAP is used to a very large extent on vibrating screens. The result shows a material increase in tonnage-capacity.

The same is true of shaking screens as they are usually applied at an angle anywhere from 20 to 45 degrees.

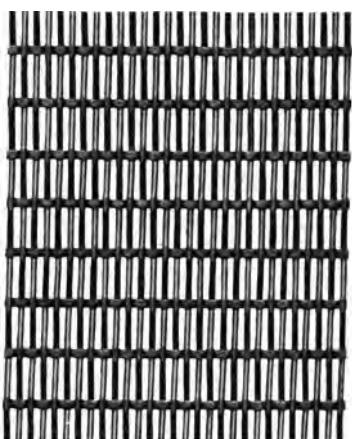
TON-CAP is also used very largely for jig screens because it not only has the advantage of tonnage-capacity, but also the TON-CAP screen does not blind to any considerable extent in the jigs.

Where TON-CAP is to replace another type of screen, please remember in ordering, to describe explicitly the screen it is to replace, giving the size and shape of the opening also the thickness of the wire or plate. TON-CAP cannot be supplied in rolls, therefore it is necessary to state the length and width of sections in the order. For instance, an order may read:

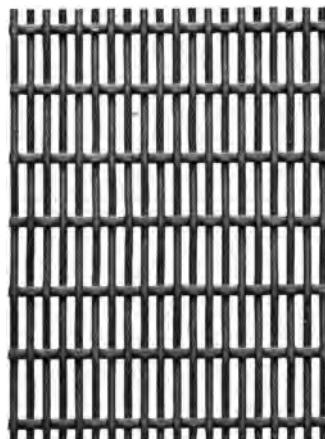
“10 pcs. 48" x 36" Steel TON-CAP Screen,
to produce equivalent sizing to 10 mesh
.041" square mesh wire cloth screening
at an angle of 45 degrees.”

Each screen is designated by a number to avoid the complicated TON-CAP specifications and this number should be stated on repeat orders.

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No. 89 TON-CAP



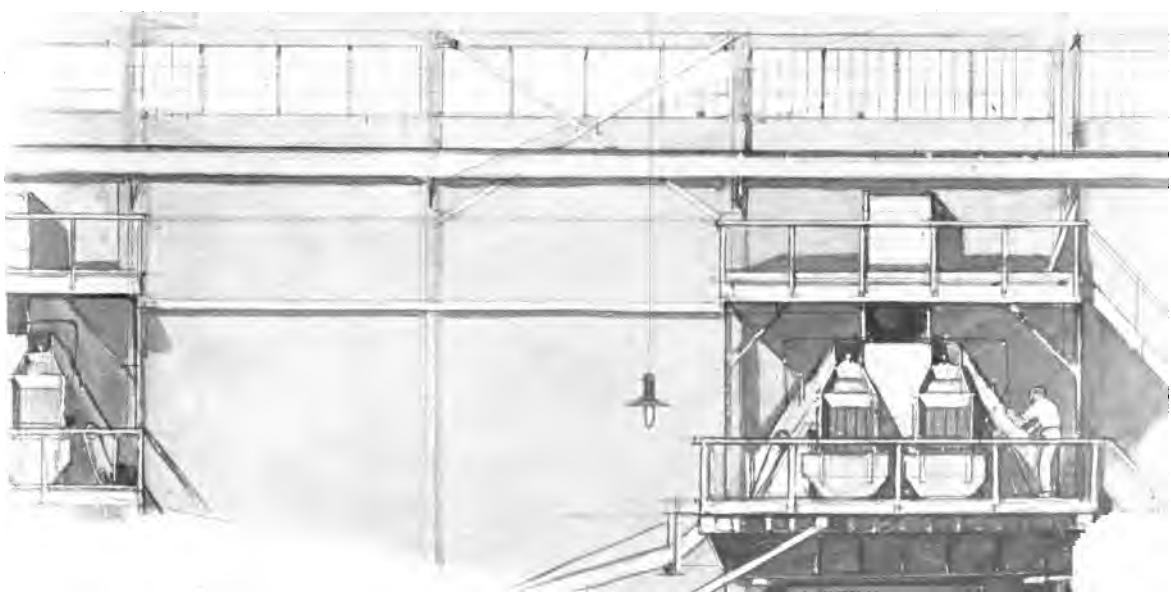
No. 66 TON-CAP



No. 35 TON-CAP



No. 29 TON-CAP



Ton-Cap for Cement Screen

TON-CAP Screen is now being used quite extensively on the various crushing, pulverizing and screening machines used in the manufacture of portland cement.

Some years ago, Ball Mills were equipped generally with a light square mesh wire screen. It was then necessary to use light wire to get the necessary capacity for otherwise the openings would clog. The light wire resulted in short life of screen but since the introduction of TON-CAP for Ball Mill work, it has been found possible to use a heavier wire and get a very satisfactory life of screen with equal or greater tonnage.

In ordering TON-CAP screen for Ball Mills, it is necessary to give the size of the screen frames also a full description of the size and shape of the opening of the screen in use which the TON-CAP is to replace, for instance an order for Ball Mill screen may read:

"50 pcs. 26" x 54" Steel TON-CAP Screen
to produce equivalent sizing to 14 mesh
.028" square mesh wire cloth."

Mills that grind cement clinker into the finished product can be advantageously equipped with TON-CAP screen, resulting in a very satisfactory life of screen and tonnage capacity. Excellent returns have also been reported where TON-CAP screen is used on mills for grinding coal.

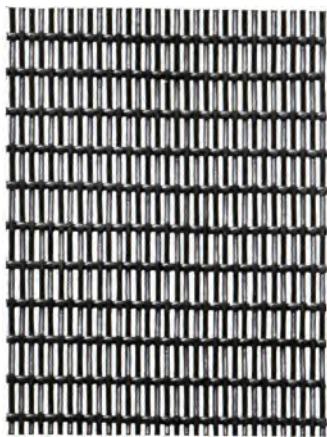
As TON-CAP screen cannot be supplied in rolls, it is necessary to state the length and width of sections in the order. For instance, an order may read:

"20 pcs. 13' 6" x 24" Steel TON-CAP
Screen to produce equivalent sizing to
40 mesh .0135" square mesh wire cloth."

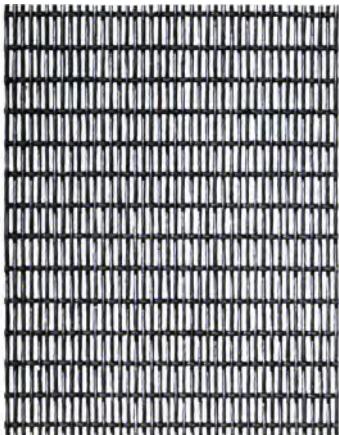
*The W. S. Tyler
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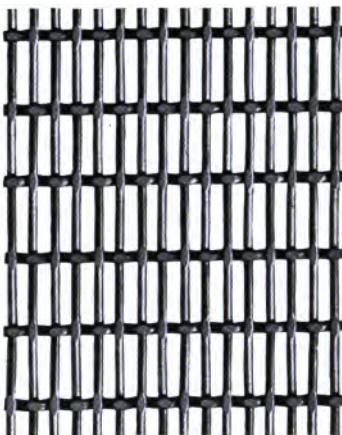
No. 184 TON-CAP



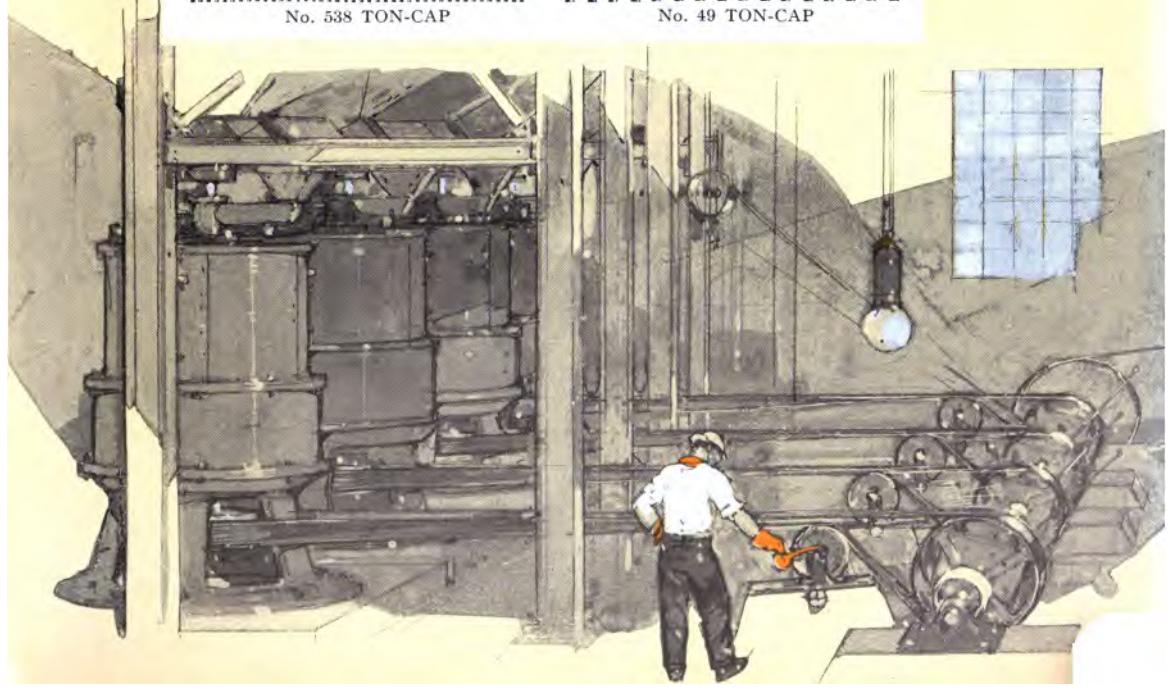
No. 295 TON-CAP



No. 538 TON-CAP



No. 49 TON-CAP



List of Standard Numbers of Ton-Cap Screen

THE list of the standard numbers of TON-CAP screen, width of opening $\frac{1}{4}$ inch and finer, beginning on the opposite page has been compiled with a view of assisting the user in the selection of screens.

This list refers only to standard numbers but the Company is prepared to make TON-CAP screen coarser or finer or of any special character to produce any result desired.

The width of opening is the most important specification in TON-CAP screen because it determines the sizing, therefore it will be observed that the width of slot stated in the decimal of an inch appears in the first column. As some screen users estimate the opening by millimeter, the width of slot in millimeters is shown in the second column.

For the reason that the specifications of TON-CAP screen is very complicated, each combination of meshes and wires is designated by a number. These numbers are placed in the columns under the headings "Extra Heavy," "Heavy," "Medium," "Medium Light" and "Light," which will assist the user in securing the desired weight of screen. The standard lists should prove valuable in ordering small quantities of screen for experimenting and the question of the weight of the screen must be determined according to the use for which it is intended.

To secure a screen for a definite service, the best results are obtained by supplying the Company with information that will enable them to co-operate in selecting a number best adapted for the work.

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LIST OF STANDARD NUMBERS OF TON-CAP SCREEN

| Width of Opening Inches | Width of Opening Millimeters | Extra Heavy | Heavy | Medium | Medium Light | Light |
|-------------------------------|------------------------------------|----------------|-------|--------|-----------------|-------|
| .250" | 6.35 $\frac{m}{m}$ | *892 | *928 | * 3 | ... | ... |
| .220" | 5.588 $\frac{m}{m}$ | *890 | *903 | * 10 | ... | ... |
| .190" | 4.826 $\frac{m}{m}$ | *904 | *390 | *924 | ... | ... |
| .155" | 3.937 $\frac{m}{m}$ | *905 | *401 | * 18 | ... | ... |
| .140" | 3.556 $\frac{m}{m}$ | *861 | * 25 | * 22 | ... | ... |
| .125" | 3.175 $\frac{m}{m}$ | * 23 | *514 | *624 | *622 | *736 |
| .110" | 2.794 $\frac{m}{m}$ | *765 | *361 | *737 | *665 | *763 |
| .100" | 2.540 $\frac{m}{m}$ | *629 | *367 | *661 | *599 | *843 |
| .090" | 2.286 $\frac{m}{m}$ | *368 | * 35 | *755 | *341 | *906 |
| .080" | 2.032 $\frac{m}{m}$ | *235 | *764 | * 38 | *930 | *248 |
| .070" | 1.778 $\frac{m}{m}$ | * 40 | *895 | * 44 | *740 | *805 |
| .060" | 1.524 $\frac{m}{m}$ | *241 | *691 | * 49 | *566 | *823 |
| .055" | 1.397 $\frac{m}{m}$ | *554 | *346 | *835 | *305 | *498 |
| .050" | 1.27 $\frac{m}{m}$ | *838 | * 58 | *309 | *499 | *588 |
| .0475" | 1.207 $\frac{m}{m}$ | *349 | *812 | * 66 | *833 | *850 |

List of Standard Numbers of Ton-Cap Screen

ONE important reason why the Company should be consulted in such cases is because of the unusual shape of openings, making it necessary to have data and records of TON-CAP sizing to compare with that of other screens.

HOW TO ORDER

In ordering TON-CAP screen, the specifications should be explicit in stating the quantity required, the length and width of the sections, and if possible the number of the screen.

TON-CAP screen must be furnished in sections to accommodate the rolling process and it is therefore preferable to specify the exact length and width of sections required for the screen frames. As an illustration, an order may read:

"12 pieces 10" x 52" No. 330 TON-CAP Screen."

In this connection, the size of sections in which TON-CAP is to be used should not exceed fifteen feet in length or five feet in width.

Where screens of irregular size or special shape are required, a template should accompany the order showing how the screens are to be cut.

If the TON-CAP number has not been determined, it is important to state how the TON-CAP is to be used and the kind of material to be screened, together with type of mill in use. If the TON-CAP is to replace another type of screen, it is necessary to state size and shape of openings, together with thickness of wire or metal of the

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LIST OF STANDARD NUMBERS OF TON-CAP SCREEN

| Width of Opening Inches | Width of Opening Millimeters | Extra Heavy | Heavy | Medium | Medium Light | Light |
|-------------------------------|------------------------------------|----------------|-------|--------|-----------------|-------|
| .045" | 1.143 ^{m/m} | * 57 | * 931 | * 908 | * 582 | * 932 |
| .0425" | 1.080 ^{m/m} | * 303 | * 63 | * 590 | * 277 | * 815 |
| .040" | 1.016 ^{m/m} | * 813 | * 909 | * 365 | * 270 | * 933 |
| .0375" | .953 ^{m/m} | * 824 | * 279 | * 355 | * 357 | * 262 |
| .035" | .889 ^{m/m} | * 321 | * 77 | * 273 | * 819 | * 617 |
| .0325" | .826 ^{m/m} | * 574 | * 910 | * 89 | * 95 | * 796 |
| .030" | .762 ^{m/m} | * 371 | * 352 | * 614 | * 520 | * 695 |
| .028" | .711 ^{m/m} | * 849 | * 853 | * 97 | * 697 | * 675 |
| .027" | .686 ^{m/m} | * 848 | * 260 | * 93 | * 918 | * 793 |
| .026" | .660 ^{m/m} | * 350 | * 261 | * 917 | * 671 | * 855 |
| .025" | .635 ^{m/m} | * 919 | * 288 | * 792 | * 538 | * 916 |
| .024" | .610 ^{m/m} | * 379 | * 92 | * 423 | * 338 | * 915 |
| .023" | .584 ^{m/m} | * 615 | * 295 | * 677 | * 858 | * 434 |
| .022" | .559 ^{m/m} | * 411 | * 637 | * 914 | * 333 | * 136 |
| .021" | .533 ^{m/m} | * 913 | * 421 | * 857 | * 433 | * 382 |

List of Standard Numbers of Ton-Cap Screen

screen to be replaced. Better still, accompany the order with a small sample of the screen in use — then TON-CAP screen can be selected to produce the same sizing.

On repeat orders, refer to the number on the invoice or on the metal tag attached to all bundles of TON-CAP screen in shipment.

CODE WORDS

There is a code word for each number of TON-CAP screen in the tables shown on pages 49 to 53. On these pages are also code words for specifying the number of pieces, dimensions of each piece, also whether iron, steel, brass, copper, bronze or phosphor bronze.

METAL SPECIFICATIONS

TON-CAP screen is made regularly in iron, steel, brass, copper, bronze and phosphor bronze, but can be made from any metal that may be desired for any purpose.

DOUBLE SHOOT WIRES

Practically all TON-CAP screen is supplied with single shoot or cross wires, that is the wires running at right angles to the length of the slot. There are some instances where double shoot wires show an advantage in screen use, therefore are made accordingly. An illustration of Double Shoot TON-CAP Screen is shown at the right on page 27. All specifications in the standard list are of single shoot wires.

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LIST OF STANDARD NUMBERS OF TON-CAP SCREEN

| Width of Opening Inches | Width of Opening Millimeters | Extra Heavy | Heavy | Medium | Medium Light | Light |
|-------------------------------|------------------------------------|----------------|-------|--------|-----------------|-------|
| .020" | .508 ^{m/m} | *630 | *319 | *330 | *149 | *544 |
| .019" | .483 ^{m/m} | *527 | *318 | *129 | *143 | *152 |
| .018" | .457 ^{m/m} | *670 | *911 | *138 | *154 | *167 |
| .017" | .432 ^{m/m} | *332 | *430 | *145 | *166 | *164 |
| .016" | .406 ^{m/m} | *912 | *438 | *542 | *162 | *775 |
| .015" | .381 ^{m/m} | *531 | *147 | *155 | *170 | *177 |
| .014" | .356 ^{m/m} | *381 | *711 | *157 | *165 | *176 |
| .013" | .330 ^{m/m} | *541 | *178 | *750 | *181 | *188 |
| .012" | .305 ^{m/m} | *158 | *159 | *778 | *182 | *215 |
| .011" | .279 ^{m/m} | *163 | *179 | *189 | *191 | *212 |
| .010" | .254 ^{m/m} | *710 | *777 | *190 | *214 | *217 |
| .009" | .229 ^{m/m} | *184 | *185 | *216 | *220 | *221 |
| .008" | .203 ^{m/m} | *186 | *213 | *211 | *223 | *224 |
| .007" | .178 ^{m/m} | *222 | *490 | *491 | *500 | *502 |

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LENGTHS — INCHES AND MILLIMETERS
Equivalents of Decimal and Common Fractions
of an Inch in Millimeters

From $\frac{1}{64}$ to 1 Inch

| In. | $\frac{1}{2}$'s | $\frac{1}{4}$'s | 8ths | 16ths | 32ds | 64ths | Millimeters | Decimals of an Inch |
|-----|------------------|------------------|------|-------|------|-------|-------------|---------------------------|
| | | | | | 1 | 2 | = .397 | .015625 |
| | | | | | | 3 | = .794 | .03125 |
| | | | | | | 4 | = 1.191 | .046875 |
| | | | | | | 5 | = 1.588 | .0625 |
| | | | | | | 6 | = 1.984 | .078125 |
| | | | | | | 7 | = 2.381 | .09375 |
| | | | | | | 8 | = 2.778 | .109375 |
| | | | | | | 9 | = 3.175 | .1250 |
| | | | | | | 10 | = 3.572 | .140625 |
| | | | | | | 11 | = 3.969 | .15625 |
| | | | | | | 12 | = 4.366 | .171875 |
| | | | | | | 13 | = 4.763 | .1875 |
| | | | | | | 14 | = 5.159 | .203125 |
| | | | | | | 15 | = 5.556 | .21875 |
| | | | | | | 16 | = 5.953 | .234375 |
| | | | | | | 17 | = 6.350 | .2500 |
| | | | | | | 18 | = 6.747 | .265625 |
| | | | | | | 19 | = 7.144 | .28125 |
| | | | | | | 20 | = 7.541 | .296875 |
| | | | | | | 21 | = 7.938 | .3125 |
| | | | | | | 22 | = 8.334 | .328125 |
| | | | | | | 23 | = 8.731 | .34375 |
| | | | | | | 24 | = 9.128 | .359375 |
| | | | | | | 25 | = 9.525 | .3750 |
| | | | | | | 26 | = 9.922 | .390625 |
| | | | | | | 27 | = 10.319 | .40625 |
| | | | | | | 28 | = 10.716 | .421875 |
| | | | | | | 29 | = 11.113 | .4375 |
| | | | | | | 30 | = 11.509 | .453125 |
| | | | | | | 31 | = 11.906 | .46875 |
| | | | | | | 32 | = 12.303 | .484375 |
| | | | | | | 33 | = 12.700 | .5 |
| | | | | | | 34 | = 13.097 | .515625 |
| | | | | | | 35 | = 13.494 | .53125 |
| | | | | | | 36 | = 13.891 | .546875 |
| | | | | | | 37 | = 14.288 | .5625 |
| | | | | | | 38 | = 14.684 | .578125 |
| | | | | | | 39 | = 15.081 | .59375 |
| | | | | | | 40 | = 15.478 | .609375 |
| | | | | | | 41 | = 15.875 | .625 |
| | | | | | | 42 | = 16.272 | .640625 |
| | | | | | | 43 | = 16.669 | .65625 |
| | | | | | | 44 | = 17.066 | .671875 |
| | | | | | | 45 | = 17.463 | .6875 |
| | | | | | | 46 | = 17.859 | .703125 |
| | | | | | | 47 | = 18.256 | .71875 |
| | | | | | | 48 | = 18.653 | .734375 |
| | | | | | | 49 | = 19.050 | .75 |
| | | | | | | 50 | = 19.447 | .765625 |
| | | | | | | 51 | = 19.844 | .78125 |
| | | | | | | 52 | = 20.241 | .796875 |
| | | | | | | 53 | = 20.638 | .8125 |
| | | | | | | 54 | = 21.034 | .828125 |
| | | | | | | 55 | = 21.431 | .84375 |
| | | | | | | 56 | = 21.828 | .859375 |
| | | | | | | 57 | = 22.225 | .875 |
| | | | | | | 58 | = 22.622 | .890625 |
| | | | | | | 59 | = 23.019 | .90625 |
| | | | | | | 60 | = 23.416 | .921875 |
| | | | | | | 61 | = 23.813 | .9375 |
| | | | | | | 62 | = 24.209 | .953125 |
| | | | | | | 63 | = 24.606 | .96875 |
| | | | | | | 64 | = 25.003 | .984375 |
| | | | | | | | = 25.400 | 1.000 |

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LENGTHS — HUNDREDTHS OF AN INCH TO MILLIMETERS

From 1 to 100 Hundredths

| Hundredths of an Inch | 0 | 1 | 2 | 3 | 4 |
|-----------------------|--------|--------|--------|--------|--------|
| 0 | 0 | .254 | .508 | .762 | 1.016 |
| 10 | 2.540 | 2.794 | 3.048 | 3.302 | 3.556 |
| 20 | 5.080 | 5.334 | 5.588 | 5.842 | 6.096 |
| 30 | 7.620 | 7.874 | 8.128 | 8.382 | 8.636 |
| 40 | 10.160 | 10.414 | 10.668 | 10.922 | 11.176 |
| 50 | 12.700 | 12.954 | 13.208 | 13.462 | 13.716 |
| 60 | 15.240 | 15.494 | 15.748 | 16.002 | 16.256 |
| 70 | 17.780 | 18.034 | 18.288 | 18.542 | 18.796 |
| 80 | 20.320 | 20.574 | 20.828 | 21.082 | 21.336 |
| 90 | 22.860 | 23.114 | 23.368 | 23.622 | 23.876 |
| Hundredths of an Inch | 5 | 6 | 7 | 8 | 9 |
| 0 | 1.270 | 1.524 | 1.778 | 2.032 | 2.286 |
| 10 | 3.810 | 4.064 | 4.318 | 4.572 | 4.826 |
| 20 | 6.350 | 6.604 | 6.858 | 7.112 | 7.366 |
| 30 | 8.890 | 9.144 | 9.398 | 9.652 | 9.906 |
| 40 | 11.430 | 11.684 | 11.938 | 12.192 | 12.446 |
| 50 | 13.970 | 14.224 | 14.478 | 14.732 | 14.986 |
| 60 | 16.510 | 16.764 | 17.018 | 17.272 | 17.526 |
| 70 | 19.050 | 19.304 | 19.558 | 19.812 | 20.066 |
| 80 | 21.590 | 21.844 | 22.098 | 22.352 | 22.606 |
| 90 | 24.130 | 24.384 | 24.638 | 24.892 | 25.146 |

LENGTHS — MILLIMETERS TO DECIMALS OF AN INCH

From 1 to 100 Units

| Millimeters | 0 | 1 | 2 | 3 | 4 |
|-------------|---------|---------|---------|---------|---------|
| 0 | 0 | .03937 | .07874 | .11811 | .15748 |
| 10 | .39370 | .43307 | .47244 | .51181 | .55118 |
| 20 | .78740 | .82677 | .86616 | .90551 | .94488 |
| 30 | 1.18110 | 1.22047 | 1.25984 | 1.29921 | 1.33858 |
| 40 | 1.57480 | 1.61417 | 1.65354 | 1.69291 | 1.73228 |
| 50 | 1.96850 | 2.00787 | 2.04724 | 2.08661 | 2.12598 |
| 60 | 2.36220 | 2.40157 | 2.44094 | 2.48031 | 2.51968 |
| 70 | 2.75590 | 2.79527 | 2.83464 | 2.87401 | 2.91338 |
| 80 | 3.14960 | 3.18897 | 3.22834 | 3.26771 | 3.30708 |
| 90 | 3.54330 | 3.58267 | 3.62204 | 3.66141 | 3.70078 |
| Millimeters | 5 | 6 | 7 | 8 | 9 |
| 0 | .19685 | .23622 | .27559 | .31496 | .35433 |
| 10 | .59055 | .62992 | .66929 | .70866 | .74803 |
| 20 | .98425 | 1.02362 | 1.06299 | 1.10236 | 1.14173 |
| 30 | 1.37795 | 1.41732 | 1.45669 | 1.49606 | 1.53543 |
| 40 | 1.77165 | 1.81102 | 1.85039 | 1.88976 | 1.92913 |
| 50 | 2.16535 | 2.20472 | 2.24409 | 2.28346 | 2.32283 |
| 60 | 2.55905 | 2.59842 | 2.63779 | 2.67716 | 2.71653 |
| 70 | 2.95275 | 2.99212 | 3.03149 | 3.07086 | 3.11023 |
| 80 | 3.34645 | 3.38582 | 3.42519 | 3.46456 | 3.50393 |
| 90 | 3.74015 | 3.77952 | 3.81889 | 3.85826 | 3.89763 |

The Tyler Standard Screen Scale Sieves

This screen scale has as its base an opening of .0029-inch which is the opening in 200 mesh .0021-inch wire, the standard sieve, as adopted by the Bureau of Standards of the United States Government, the openings increasing in the ratio of the square root of 2 or 1.414.

Where a closer sizing is required in the finer openings, a scale is shown below this table from 65 to 200 mesh, in which the openings increase in the ratio of the fourth root of 2 or 1.189.

| Code Word | Opening in Inches Ratio $\sqrt[4]{\frac{1}{2}}$ or 1.414 | Opening in Millimeters | Mesh | Diam. Wire, Decimal of an Inch | Brass Frames Covered with Brass Wire Cloth | | | | |
|-----------|--|------------------------|------|--------------------------------|--|------------------------------|------------------------------|-------------------------------|-------------------------------|
| | | | | | 6-Inch Diam. List Price Each | 7-Inch Diam. List Price Each | 8-Inch Diam. List Price Each | 10-Inch Diam. List Price Each | 12-Inch Diam. List Price Each |
| Ifack | .050 | 26.67 | | .149 | \$2.65 | \$3.30 | \$4.00 | \$5.45 | \$6.95 |
| Ifaliv | .742 | 18.85 | | .135 | 2.65 | 3.30 | 4.00 | 5.45 | 6.95 |
| Ifaka | .525 | 13.33 | | .105 | 2.65 | 3.30 | 4.00 | 5.45 | 6.95 |
| Ifamp | .371 | 9.423 | | .092 | 2.65 | 3.30 | 4.00 | 5.45 | 6.95 |
| Ifarc | .263 | 6.680 | 3 | .070 | 2.50 | 3.10 | 3.70 | 5.00 | 6.30 |
| Ifbes | .185 | 4.699 | 4 | .065 | 2.50 | 3.10 | 3.70 | 5.00 | 6.30 |
| Ifbon | .131 | 3.327 | 6 | .036 | 2.50 | 3.10 | 3.70 | 5.00 | 6.30 |
| Ifbut | .093 | 2.362 | 8 | .032 | 2.50 | 3.10 | 3.70 | 5.00 | 6.30 |
| Ifcar | .065 | 1.651 | 10 | .035 | 2.50 | 3.10 | 3.70 | 5.00 | 6.30 |
| Ifcod | .046 | 1.168 | 14 | .025 | 2.30 | 2.85 | 3.40 | 4.50 | 5.65 |
| Ifday | .0328 | .833 | 20 | .0172 | 2.30 | 2.85 | 3.40 | 4.50 | 5.65 |
| Ifdot | .0232 | .589 | 28 | .0125 | 2.30 | 2.85 | 3.40 | 4.50 | 5.65 |
| Ifeco | .0164 | .417 | 35 | .0122 | 2.30 | 2.85 | 3.40 | 4.50 | 5.65 |
| Ifcox | .0116 | .295 | 48 | .0092 | 2.30 | 2.85 | 3.40 | 4.50 | 5.65 |
| Iferb | .0082 | .208 | 65 | .0072 | 2.30 | 2.85 | 3.40 | 4.50 | 5.65 |
| Ifeve | .0058 | .147 | 100 | .0042 | 2.85 | 3.55 | 4.30 | 5.90 | 7.60 |
| Ifged | .0041 | .104 | 150 | .0026 | 3.55 | 4.50 | 5.50 | 7.75 | 10.20 |
| Ifgik | .0029 | .074 | 200 | .0021 | 4.75 | 6.15 | 7.60 | 10.95 | 14.75 |

FOR CLOSER SIZING — 65 to 200 MESH

| Code Word | Opening in Inches Ratio $\frac{4}{\sqrt[4]{2}}$ or 1.189 | Opening in Millimeters | Mesh | Diam. of Wire, Decimal of an Inch | 6-Inch Diam. List Price Each | 7-Inch Diam. List Price Each | 8-Inch Diam. List Price Each | 10-Inch Diam. List Price Each | 12-Inch Diam. List Price Each |
|-----------|--|------------------------|------|-----------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| | | | | | | | | | |
| Ifgur | .0082 | .208 | 65 | .0072 | \$2.30 | \$2.85 | \$3.40 | \$4.50 | \$5.65 |
| Ifhaz | .0069 | .175 | 80 | .0056 | 2.50 | 3.10 | 3.70 | 5.00 | 6.30 |
| Ifhim | .0058 | .147 | 100 | .0042 | 2.85 | 3.55 | 4.30 | 5.90 | 7.60 |
| Ifhul | .0049 | .124 | 115 | .0038 | 3.00 | 3.80 | 4.60 | 6.35 | 8.25 |
| Ifida | .0041 | .104 | 150 | .0026 | 3.55 | 4.50 | 5.50 | 7.75 | 10.20 |
| Iflag | .0035 | .088 | 170 | .0024 | 4.00 | 5.20 | 6.40 | 9.10 | 12.15 |
| Ifmez | .0029 | .074 | 200 | .0021 | 4.75 | 6.15 | 7.60 | 10.95 | 14.75 |
| Ifzal | Brass pan and cover..... | | | | \$1.75 | \$2.00 | \$2.25 | \$2.75 | \$3.25 |
| Ifzun | Tinned pan and cover..... | | | | 1.50 | 1.75 | 2.00 | 2.50 | 3.00 |

Igann, 6 inches diameter; Igasp, 7 inches diameter; Igaza, 8 inches diameter; Igbom, 10 inches diameter; Igbug, 12 inches diameter. Igevo, include pan and cover.

In ordering testing sieves from this table, they must be specified as the "Tyler Standard Screen Scale Sieves."



THE TYLER STANDARD SCREEN SCALE SIEVES

On sieves made to the Tyler Standard Screen Scale, will be found name plates as shown above, marked with the size of opening both in inches and millimeters, as well as showing the number of the meshes.

The use of the Tyler Standard Screen Scale testing sieves is strongly recommended for making screen analyses, for these testing sieves with openings that increase and decrease throughout the series in a fixed ratio will divide the product in much better proportion than a sieve series with no fixed relationship between the openings.

Many industries have established 200-mesh cloth as the minimum in screen sizing and as the Bureau of Standards of the United States Government has standardized the 200-mesh sieve made from .0021-inch wire, having an opening of .0029-inch, this sieve has been adopted as the base of the Tyler Standard Screen Scale.

The 100-mesh and the 20-mesh sieves in this screen scale also come within the specifications adopted by the Bureau of Standards, so that there are three sieves in the series which have been standardized by the Bureau.

When it is necessary to carry an analysis finer than 200 mesh, sieves can be supplied as fine as 260 mesh in plain cloth and 300 mesh in twilled cloth.

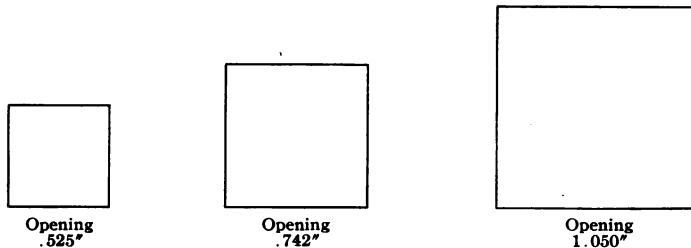
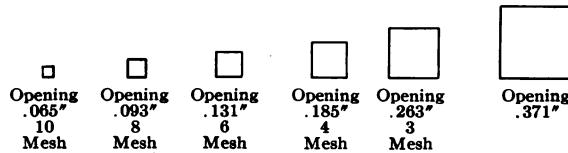
The ratio between the different sizes of the screen scale has been taken as 1.414 or the square root of 2, as recommended by Rittinger in his work on ore dressing. The niceness of this will be apparent from the following:

The Tyler Standard Screen Scale Sieves

taking .0029-inch or .074 millimeter, the opening in the 200-mesh sieve as the base or starting point, the diameter of each successive opening is exactly 1.414 times the opening in the previous sieve. It also makes the area or surface of each successive opening in the scale just double that of the next finer or half that of the next coarser sieve. In other words, the diameters of the successive sizes have a constant ratio of 1.414 while the areas of the successive openings have a constant ratio of 2.

This constant ratio in the openings is shown drawn to scale. To illustrate: the opening .093-inch in the (8-mesh) sieve is 1.414 times the opening in the preceding sieve .065-inch (10-mesh). The area of the opening in .093-inch (8-mesh) sieve is twice that of .065-inch (10-mesh) and just half the area of the opening in the .131-inch (6-mesh) sieve.

| Opening .0029" | Opening .0041" | Opening .0058" | Opening .0082" | Opening .0116" | Opening .0164" | Opening .0232" | Opening .0328" | Opening .046" |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| 200 Mesh | 150 Mesh | 100 Mesh | 65 Mesh | 48 Mesh | 35 Mesh | 28 Mesh | 20 Mesh | 14 Mesh |



Another advantage in this selection of ratio is that by skipping every other screen, you have a ratio of diameter of 2 to 1, by skipping two sizes you have a ratio of 3 to 1 (approximately), and by skipping three sizes, you get a

ratio of 4 to 1, so that in selecting a screen scale for concentrating work, for instance, you can pick out from the table without any calculation a 1.414, 2, 3, or 4 to 1 ratio of opening.

The Tyler Standard Screen Scale with a 1.414 ratio has eighteen sieves ranging from .0029-inch (200-mesh) to 1.05-inch opening, making only four sieves in the series that are .0082-inch (65-mesh) and finer, and while this number has been found ample to cover all the requirements in ordinary laboratory practice and in the plotting of curves showing a screen analysis, yet, to provide for a closer sizing where it is necessary in the finer sizes, the table on page 44 will be found to contain three intermediate sieves making seven sieves .0082-inch (65-mesh) and finer.

The screen scale in the lower table is based on an opening of .0029-inch and increases in series in the ratio of the fourth root of 2 or 1.189, the factor recommended by Prof. Richards in his work on ore dressing. This then has a ratio of 1.189 or the fourth root of 2 between the sizes .0082-inch (65-mesh) and .0029-inch (200-mesh) or a difference in the areas between these sizes of about 1.5 times instead of 2. This closer ratio can be carried through the coarser sizes if found to be necessary.

In the Tyler Standard Screen Scale, the size of opening has been placed in the first column of the table on account of its importance. The term "mesh" has been made secondary and its use should be discontinued as far as possible. In a technical sense, the word "mesh" is meaningless, unless the diameter of the wire is also given, so that the opening is determined. The size of opening is the measure of the product and the mesh and diameter of wire are only valuable as a means of determining the size of opening. However, the mesh and diameter of wire have also been shown in the tables for the convenience of those who still wish to use "mesh" in referring to testing sieves.

Graphic Illustration of Screen Analysis

There are many advantages in the graphic method of illustrating the data obtained in a screen analysis. Plotted curves of the crushings by different methods or from two competing machines, for instance, express the differences in a more striking and concise manner than does the tabulated data. Of the several methods of plotting these curves, the cumulative direct plot and cumulative logarithmic plot are the two most valuable and generally used. The curves in either plan are plotted by marking the cumulative percentages of the material which remains on the sieves on the corresponding vertical lines drawn from the several openings on the horizontal scale of the diagram. After drawing in the curve, the percentages remaining on any set of openings other than those of the testing sieves used, can be found by interpolation and in this way the re-distribution of the same material by any assumed set of openings can be determined.

The W. S. Tyler Company will furnish in connection with sieves made to the Tyler Standard Screen Scale, specially ruled paper for plotting curves as described above. The size of the sheets being $8\frac{1}{2} \times 11$ inches and of suitable paper for making blueprints, put up in pads of 25 sheets each. These diagram sheets for plotting curves will also have printed on them the Tyler Standard Screen Scale with a blank column left for noting the weight of the material remaining on each testing sieve, a column for the percentage of weight and a column for the cumulative per cent of weight.

Testing Sieve Catalogue No. 36 covers the subject of Tyler Standard Screen Scale sieves fully, also illustrates and describes the method of using the plotting paper.

This catalogue will be sent upon request.

TELEGRAPH AND CABLE CODE

THERE is a code word shown for each number of TON-CAP screen in the following tables, also code words for specifying the number of pieces, dimensions of each piece, also whether brass, steel, copper, bronze or phosphor bronze is required. If no metal is mentioned, steel will be furnished.

Each code word contains five letters. In sending cable messages, two words can be run together and sent as one word.

SPECIMENS OF CODE MESSAGES

| | | | | | |
|--------------------|---------|--------|-------|--------|-----------------------|
| LABIL | LAJUW | LALUY | LOBEH | LOJIR | ACZOK LUKEL |
| Ship us by freight | 50 Pcs. | 10 Ft. | 6 In. | 36 In. | No. 23 Brass TON-CAP |
| LABAJ | LAJOV | LOFIM | LUDEF | LOBUL | AGVOM |
| Ship us by express | 40 Pcs. | 21 In. | ½ In. | 9 In. | No. 324 Steel TON-CAP |

THE W. S. TYLER COMPANY CABLE ADDRESS—
“TYLER CLEVELAND”

CODE WORDS FOR ORDERING TON-CAP SCREEN

| Code Word | Code Word |
|----------------------------------|---|
| Labaj Ship us by express | Labyr Ship by boat to |
| Labeb Ship by express to | Lacak Ship us by express, C. O. D. |
| Labil Ship us by freight | Lacel Ship us by freight, S. D. vs. |
| Labom Ship by freight to | B. L. |
| Labun Ship us by boat | Lacim Duplicate our order of |

TABLE INDICATING NUMBER OF PIECES

| Code Word | No. of Pieces | Code Word | No. of Pieces | Code Word | No. of Pieces | Code Word | No. of Pieces |
|------------------|---------------|------------------|---------------|------------------|---------------|--------------------|---------------|
| Lacon 2 | | Lafip 11 | | Laheh 20 | | Lajov 40 | |
| Lacup 3 | | Lafor 12 | | Lahis 21 | | Lajuw 50 | |
| Ladal 4 | | Lafus 13 | | Lahot 22 | | Lajyx 100 | |
| Ladem 5 | | Lagan 14 | | Lahuv 23 | | Lajza 200 | |
| Ladin 6 | | Lagep 15 | | Lahyw 24 | | Lakab 300 | |
| Ladop 7 | | Lagir 16 | | Lajar 25 | | Lakaf 500 | |
| Ladur 8 | | Lagoe 17 | | Lajes 30 | | Lakag 800 | |
| Lafam 9 | | Lagut 18 | | Lajit 35 | | Lakah 1000 | |
| Lafen 10 | | Lahap 19 | | | | | |

Telegraph and Cable Code

TABLE OF FEET INDICATING DIMENSIONS OF PIECES

| Code Word | No. of Feet |
|-----------|-------------|-----------|-------------|-----------|-------------|-----------|-------------|
| Lakas. | 2 | Lassaz. | 30 | Lebay. | 58 | Lehoj. | 86 |
| Laket. | 3 | Laseb. | 31 | Lebez. | 59 | Lehuk. | 87 |
| Lakiv. | 4 | Lasic. | 32 | Lebib. | 60 | Lejeh. | 88 |
| Lakow. | 5 | Lasod. | 33 | Leboc. | 61 | Leiji. | 89 |
| Lakux. | 6 | Lasuf. | 34 | Lebud. | 62 | Lejok. | 90 |
| Lalat. | 7 | Latab. | 35 | Lecaz. | 63 | Lejul. | 91 |
| Lalev. | 8 | Latec. | 36 | Leceb. | 64 | Lekan. | 92 |
| Lalox. | 9 | Latid. | 37 | Lecic. | 65 | Lekik. | 93 |
| Laluy. | 10 | Latof. | 38 | Lecod. | 66 | Lekol. | 94 |
| Lamav. | 11 | Latug. | 39 | Lecuf. | 67 | Lekum. | 95 |
| Lamew. | 12 | Lavac. | 40 | Ledab. | 68 | Lelaj. | 96 |
| Lamix. | 13 | Laved. | 41 | Lede. | 69 | Lelek. | 97 |
| Lamoy. | 14 | Lavif. | 42 | Ledit. | 70 | Leili. | 98 |
| Lamuz. | 15 | Lavog. | 43 | Ledof. | 71 | Lelon. | 99 |
| Lanaw. | 16 | Lavuh. | 44 | Ledug. | 72 | Lelun. | 100 |
| Lanex. | 17 | Lawad. | 45 | Lefac. | 73 | Lemak. | 125 |
| Lanoz. | 18 | Lawef. | 46 | Lefed. | 74 | Lemel. | 150 |
| Lanub. | 19 | Lawig. | 47 | Lefif. | 75 | Lemim. | 175 |
| Lapax. | 20 | Lawoh. | 48 | Lefog. | 76 | Lemon. | 200 |
| Lapey. | 21 | Lawuj. | 49 | Lefuh. | 77 | Lemup. | 250 |
| Lapiz. | 22 | Laxaf. | 50 | Legad. | 78 | Lenal. | 300 |
| Lapob. | 23 | Laxeg. | 51 | Legef. | 79 | Lenem. | 400 |
| Lapuc. | 24 | Laxih. | 52 | Legig. | 80 | Lenin. | 500 |
| Laray. | 25 | Laxuk. | 53 | Legoh. | 81 | Lenop. | 600 |
| Larez. | 26 | Lazah. | 54 | Leguij. | 82 | Lenur. | 700 |
| Larib. | 27 | Lazik. | 55 | Lehaf. | 83 | Lepam. | 800 |
| Laroc. | 28 | Lazol. | 56 | Leheg. | 84 | Lepen. | 900 |
| Larud. | 29 | Lazum. | 57 | Lehij. | 85 | Lepip. | 1000 |

TABLE OF INCHES INDICATING DIMENSIONS OF PIECES

| Code Word | Inches |
|-----------|--------|-----------|--------|-----------|--------|-----------|--------|
| Lobag. | 5 | Logem. | 25 | Loles. | 45 | Loroz. | 65 |
| Lobeh. | 6 | Login. | 26 | Lotil. | 46 | Lorub. | 66 |
| Lobij. | 7 | Logop. | 27 | Lotolv. | 47 | Losax. | 67 |
| Lobok. | 8 | Logur. | 28 | Lotluw. | 48 | Losey. | 68 |
| Lobul. | 9 | Loham. | 29 | Lomas. | 49 | Losig. | 69 |
| Locah. | 10 | Lohen. | 30 | Lomet. | 50 | Losob. | 70 |
| Locik. | 11 | Lohip. | 31 | Lomiv. | 51 | Lotay. | 71 |
| Locol. | 12 | Lohor. | 32 | Lomow. | 52 | Lotez. | 72 |
| Locum. | 13 | Lohus. | 33 | Lomux. | 53 | Lotib. | 73 |
| Lodak. | 14 | Lojan. | 34 | Lonat. | 54 | Lotoc. | 74 |
| Lodej. | 15 | Lojep. | 35 | Lonev. | 55 | Lotud. | 75 |
| Lodil. | 16 | Lojir. | 36 | Lonox. | 56 | Lovaz. | 76 |
| Lodom. | 17 | Lojos. | 37 | Lonuy. | 57 | Loveb. | 77 |
| Lodun. | 18 | Lojut. | 38 | Lopav. | 58 | Lovic. | 78 |
| Lofak. | 19 | Lokap. | 39 | Lopew. | 59 | Lovod. | 79 |
| Lofel. | 20 | Loker. | 40 | Lopix. | 60 | Lovut. | 80 |
| Lofim. | 21 | Lokis. | 41 | Lopoy. | 61 | Lowab. | 81 |
| Lofon. | 22 | Lokot. | 42 | Lopuz. | 62 | Lowec. | 82 |
| Lofup. | 23 | Lokuv. | 43 | Loraw. | 63 | Lowid. | 83 |
| Logal. | 24 | Lolar. | 44 | Lorex. | 64 | Lowof. | 84 |

TABLE OF FRACTIONS EITHER OF INCHES OR FEET

| Code Word | Fraction |
|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|
| Lubab. | $\frac{1}{8}$ | Luced. | $\frac{1}{8}$ | Ludig. | $\frac{1}{8}$ | Lugeh. | $\frac{1}{8}$ |
| Lubec. | $\frac{1}{4}$ | Lucif. | $\frac{1}{4}$ | Ludoh. | $\frac{1}{4}$ | Lugij. | $\frac{1}{4}$ |
| Lubid. | $\frac{1}{2}$ | Lucog. | $\frac{1}{2}$ | Luduji. | $\frac{1}{2}$ | Lugok. | $\frac{1}{2}$ |
| Lubof. | $\frac{3}{4}$ | Lucuh. | $\frac{3}{4}$ | Lufaf. | $\frac{3}{4}$ | Lugul. | $\frac{3}{4}$ |
| Lubug. | $\frac{1}{2}$ | Ludad. | $\frac{1}{2}$ | Lufih. | $\frac{1}{2}$ | Luhah. | $\frac{1}{2}$ |
| Lucac. | $\frac{3}{4}$ | Ludef. | $\frac{3}{4}$ | Lugag. | $\frac{3}{4}$ | | |

TABLE INDICATING MATERIALS

| Code Word | Material | Code Word | Material | Code Word | Material |
|-----------|----------|-----------|-----------------|-----------|--------------|
| Lujom. | Steel | Lukon. | Tinned Brass | Lulin. | Tinned |
| Lukak. | Iron | Lukup. | Tinned Copper | Lulop. | Light Tinned |
| Lukel. | Brass | Lulal. | Bronze | Lulur. | Galvanized |
| Lukim. | Copper | Lulem. | Phosphor Bronze | | |

*The W. S. Tyler
Company*

TABLE INDICATING NUMBER OF TON-CAP SCREEN

| Code Word | No. |
|-----------|-----|-----------|-----|-----------|-----|-----------|-----|
| Acued. | 1 | Adjal. | 84 | Afdor. | 167 | Agake. | 250 |
| Acufs. | 2 | Adjier. | 85 | Afdre. | 168 | Agalp. | 251 |
| Actuik. | 3 | Adjis. | 86 | Afduz. | 169 | Agaoak. | 252 |
| Acujo. | 4 | Adjop. | 87 | Afear. | 170 | Agaso. | 253 |
| Aculu. | 5 | Adjun. | 88 | Afebe. | 171 | Agaty. | 254 |
| Acume. | 6 | Adlam. | 89 | Afeln. | 172 | Agaws. | 255 |
| Acuny. | 7 | Adled. | 90 | Afeno. | 173 | Agbay. | 256 |
| Acuof. | 8 | Adlik. | 91 | Afeod. | 174 | Agbil. | 257 |
| Acupi. | 9 | Adlof. | 92 | Aferk. | 175 | Agbot. | 258 |
| Acurp. | 10 | Adlur. | 93 | Affat. | 176 | Agdal. | 259 |
| Acuta. | 11 | Admag. | 94 | Affdo. | 177 | Agder. | 260 |
| Acvak. | 12 | Admin. | 95 | Affom. | 178 | Agdis. | 261 |
| Acvid. | 13 | Admok. | 96 | Affug. | 179 | Agdop. | 262 |
| Acvor. | 14 | Admub. | 97 | Afguy. | 180 | Agdun. | 263 |
| Acvuz. | 15 | Admas. | 98 | Afhaf. | 181 | Agebi. | 264 |
| Acwal. | 16 | Adnek. | 99 | Afheg. | 182 | Agefa. | 265 |
| Acwer. | 17 | Admir. | 100 | Afhit. | 183 | Agego. | 266 |
| Acwisi. | 18 | Adnum. | 101 | Afhol. | 184 | Ageig. | 267 |
| Acwop. | 19 | Adoac. | 102 | Afhuk. | 185 | Ageels. | 268 |
| Acwun. | 20 | Adobi. | 103 | Afilm. | 186 | Agfoy. | 269 |
| Aczag. | 21 | Adoce. | 104 | Afina. | 187 | Agges. | 270 |
| Aczin. | 22 | Adoez. | 105 | Afion. | 188 | Aggip. | 271 |
| Aczok. | 23 | Adofa. | 106 | Afiro. | 189 | Aggon. | 272 |
| Aczub. | 24 | Adogo. | 107 | Afifut. | 190 | Aggro. | 273 |
| Adabt. | 25 | Adoig. | 108 | Afjan. | 191 | Aggut. | 274 |
| Adach. | 26 | Adols. | 109 | Afjet. | 192 | Aghem. | 275 |
| Adady. | 27 | Adorf. | 110 | Afleb. | 193 | Aghog. | 276 |
| Adags. | 28 | Adpaf. | 111 | Afif. | 194 | Agico. | 277 |
| Adako. | 29 | Adpeg. | 112 | Afioz. | 195 | Agips. | 278 |
| Adalf. | 30 | Adpit. | 113 | Afieu. | 196 | Agirb. | 279 |
| Adam. | 31 | Adpol. | 114 | Afman. | 197 | Agish. | 280 |
| Adanz. | 32 | Adpuk. | 115 | Afmef. | 198 | Agitt. | 281 |
| Adaoc. | 33 | Adreb. | 116 | Afmik. | 199 | Agive. | 282 |
| Adard. | 34 | Adrif. | 117 | Afmof. | 200 | Agjam. | 283 |
| Adase. | 35 | Adroz. | 118 | Afmur. | 201 | Agjed. | 284 |
| Adaua. | 36 | Adruv. | 119 | Afnag. | 202 | Agil. | 285 |
| Adavu. | 37 | Adsaz. | 120 | Afnin. | 203 | Agjof. | 286 |
| Adboy. | 38 | Adsbv. | 121 | Afnok. | 204 | Agjur. | 287 |
| Adcak. | 39 | Adsep. | 122 | Afnub. | 205 | Agkel. | 288 |
| Adcid. | 40 | Adsim. | 123 | Afobs. | 206 | Aglav. | 289 |
| Adcla. | 41 | Adssos. | 124 | Afock. | 207 | Aglew. | 290 |
| Adcor. | 42 | Adste. | 125 | Afoka. | 208 | Aglic. | 291 |
| Adcre. | 43 | Adslul. | 126 | Afold. | 209 | Aglob. | 292 |
| Adcuz. | 44 | Adtap. | 127 | Afomp. | 210 | Aglux. | 293 |
| Addey. | 45 | Adtgai. | 128 | Afong. | 211 | Agmaf. | 294 |
| Adeab. | 46 | Adtox. | 129 | Aforc. | 212 | Agmeg. | 295 |
| Adeds. | 47 | Adtud. | 130 | Afov. | 213 | Agmit. | 296 |
| Adeen. | 48 | Aduct. | 131 | Afowe. | 214 | Agmol. | 297 |
| Adefu. | 49 | Aduff. | 132 | Afpal. | 215 | Agmuk. | 298 |
| Adeky. | 50 | Adulg. | 133 | Afper. | 216 | Agnab. | 299 |
| Adelz. | 51 | Adunn. | 134 | Afpop. | 217 | Agnen. | 300 |
| Adenk. | 52 | Aduph. | 135 | Afpun. | 218 | Agnix. | 301 |
| Aderg. | 53 | Adury. | 136 | Afraz. | 219 | Agnuc. | 302 |
| Adesm. | 54 | Aduts. | 137 | Afrep. | 220 | Agoba. | 303 |
| Adeth. | 55 | Aduza. | 138 | Afrim. | 221 | Agoco. | 304 |
| Adeva. | 56 | Advan. | 139 | Afros. | 222 | Agodi. | 305 |
| Adewo. | 57 | Advet. | 140 | Afrul. | 223 | Agoeb. | 306 |
| Adfes. | 58 | Adwel. | 141 | Afseas. | 224 | Agohe. | 307 |
| Adfp. | 59 | Adyxax. | 142 | Afsek. | 225 | Agof. | 308 |
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| Adgar. | 63 | Adzef. | 146 | Aftav. | 229 | Agrox. | 312 |
| Adgiz. | 64 | Adzom. | 147 | Aftew. | 230 | Agriv. | 313 |
| Adgno. | 65 | Adzug. | 148 | Aftic. | 231 | Agrow. | 314 |
| Adgod. | 66 | Afad. | 149 | Aftob. | 232 | Ag saw. | 315 |
| Adguf. | 67 | Afafu. | 150 | Aftux. | 233 | Agsev. | 316 |
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| Adhec. | 69 | Afaky. | 152 | Afups. | 235 | Agsoc. | 318 |
| Adhov. | 70 | Afank. | 153 | Afurb. | 236 | Agsup. | 319 |
| Adhus. | 71 | Afarg. | 154 | Afush. | 237 | Agtey. | 320 |
| Adibs. | 72 | Afath. | 155 | Afway. | 238 | Agulb. | 321 |
| Adick. | 73 | Afava. | 156 | Afwil. | 239 | Agvat. | 322 |
| Adiju. | 74 | Afawo. | 157 | Afwot. | 240 | Agvef. | 323 |
| Adika. | 75 | Afbao. | 158 | Afyaw. | 241 | Agvom. | 324 |
| Adild. | 76 | Afbbez. | 159 | Afyev. | 242 | Agvug. | 325 |
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| Ading. | 78 | Afcad. | 161 | Afyup. | 244 | Agwid. | 327 |
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| Agzet. | 333 | Ajibi. | 416 | Alkim. | 499 | Amgot. | 582 | | |
| Ahad. | 334 | Aifa. | 417 | Alkos. | 500 | Amict. | 583 | | |
| Ahaef. | 335 | Ajila. | 418 | Alkul. | 501 | Amiff. | 584 | | |
| Ahaly. | 336 | Ajof. | 419 | Aller. | 502 | Amiob. | 585 | | |
| Ahasa. | 337 | Ajons. | 420 | Allis. | 503 | Amiry. | 586 | | |
| Ahava. | 338 | Ajopy. | 421 | Allop. | 504 | Amisp. | 587 | | |
| Ahbaz. | 339 | Ajoto. | 422 | Allun. | 505 | Amits. | 588 | | |
| Ahbep. | 340 | Ajuba. | 423 | Alnoy. | 506 | Amixo. | 589 | | |
| Ahbim. | 341 | Ajuin. | 424 | Aloor. | 507 | Amiza. | 590 | | |
| Ahbos. | 342 | Ajuke. | 425 | Alobe. | 508 | Amjar. | 591 | | |
| Ahbul. | 343 | Ajulp. | 426 | Alotz. | 509 | Amjiz. | 592 | | |
| Ahdan. | 344 | Ajuso. | 427 | Aloki. | 510 | Amjod. | 593 | | |
| Ahdet. | 345 | Akaby. | 428 | Alono. | 511 | Amjuf. | 594 | | |
| Aheek. | 346 | Akaca. | 429 | Alork. | 512 | Amkey. | 595 | | |
| Ahegi. | 347 | Akadu. | 430 | Alotu. | 513 | Almat. | 596 | | |
| Aheir. | 348 | Akaep. | 431 | Alpax. | 514 | Allef. | 597 | | |
| Ahemma. | 349 | Akaim. | 432 | Alpem. | 515 | Almion. | 598 | | |
| Ahepo. | 350 | Akaos. | 433 | Alpho. | 516 | Almlug. | 599 | | |
| Ahhib. | 351 | Akate. | 434 | Alpog. | 517 | Almap. | 600 | | |
| Ahfup. | 352 | Akaul. | 435 | Alpru. | 518 | Almox. | 601 | | |
| Ahila. | 353 | Akazo. | 436 | Alrey. | 519 | Almud. | 602 | | |
| Ahire. | 354 | Akeba. | 437 | Alsay. | 520 | Almax. | 603 | | |
| Ahkag. | 355 | Akehu. | 438 | Alsha. | 521 | Almog. | 604 | | |
| Ahkin. | 356 | Akein. | 439 | Alsil. | 522 | Amoe. | 605 | | |
| Ahkub. | 357 | Akelp. | 440 | Alsol. | 523 | Amofo. | 606 | | |
| Ahley. | 358 | Akeok. | 441 | Altaw. | 524 | Amois. | 607 | | |
| Ahnel. | 359 | Akeso. | 442 | Altev. | 525 | Amone. | 608 | | |
| Ahoaam. | 360 | Akeub. | 443 | Altib. | 526 | Amoop. | 609 | | |
| Ahoed. | 361 | Akews. | 444 | Altoc. | 527 | Amorm. | 610 | | |
| Ahoofs. | 362 | Akiam. | 445 | Altup. | 528 | Amoun. | 611 | | |
| Ahojo. | 363 | Akijo. | 446 | Alucu. | 529 | Amozu. | 612 | | |
| Aholu. | 364 | Akitu. | 447 | Alutes. | 530 | Amplex. | 613 | | |
| Ahome. | 365 | Akoec. | 448 | Alufi. | 531 | Ampriv. | 614 | | |
| Ahony. | 366 | Akolb. | 449 | Aluip. | 532 | Amran. | 615 | | |
| Ahoof. | 367 | Akomu. | 450 | Aluna. | 533 | Amret. | 616 | | |
| Ahopi. | 368 | Akubo. | 451 | Aluon. | 534 | Amsoy. | 617 | | |
| Ahotu. | 369 | Akucy. | 452 | Alupe. | 535 | Amtak. | 618 | | |
| Ahour. | 370 | Akudi. | 453 | Aluro. | 536 | Amtid. | 619 | | |
| Ahowl. | 371 | Akueb. | 454 | Alvam. | 537 | Amtor. | 620 | | |
| Ahpene. | 372 | Akuif. | 455 | Alved. | 538 | Amtre. | 621 | | |
| Ahpix. | 373 | Akupa. | 456 | Alvik. | 539 | Amtzu. | 622 | | |
| Ahrac. | 374 | Akzay. | 457 | Alvof. | 540 | Amult. | 623 | | |
| Ahrez. | 375 | Alaid. | 458 | Alvur. | 541 | Amurr. | 624 | | |
| Ahrig. | 376 | Alala. | 459 | Alwaf. | 542 | Amuss. | 625 | | |
| Ahsax. | 377 | Alaor. | 460 | Alweg. | 543 | Amveb. | 626 | | |
| Ahsem. | 378 | Alare. | 461 | Alwit. | 544 | Amvif. | 627 | | |
| Ahsog. | 379 | Alauz. | 462 | Alwol. | 545 | Amvoz. | 628 | | |
| Ahtex. | 380 | Albab. | 463 | Alwuk. | 546 | Amwez. | 629 | | |
| Ahitiv. | 381 | Alben. | 464 | Alyan. | 547 | Amwig. | 630 | | |
| Ahude. | 382 | Albix. | 465 | Alvet. | 548 | Amyas. | 631 | | |
| Ahuit. | 383 | Albup. | 466 | Alzap. | 549 | Amyek. | 632 | | |
| Ahuja. | 384 | Albwo. | 467 | Alzox. | 550 | Amzab. | 633 | | |
| Ahull. | 385 | Alcel. | 468 | Alzud. | 551 | Amzen. | 634 | | |
| Ahuns. | 386 | Aldad. | 469 | Amacu. | 552 | Anaek. | 635 | | |
| Ahupy. | 387 | Aldec. | 470 | Amafi. | 553 | Anafy. | 636 | | |
| Ahver. | 388 | Aldov. | 471 | Amamy. | 554 | Anair. | 637 | | |
| Ahvis. | 389 | Aldus. | 472 | Amana. | 555 | Anama. | 638 | | |
| Ahvop. | 390 | Aleat. | 473 | Amape. | 556 | Anapo. | 639 | | |
| Ahvun. | 391 | Aledo. | 474 | Amaro. | 557 | Anarl. | 640 | | |
| Ahwad. | 392 | Alege. | 475 | Amayu. | 558 | Anaum. | 641 | | |
| Ahwec. | 393 | Alecom. | 476 | Ambev. | 559 | Anbex. | 642 | | |
| Ahwov. | 394 | Alepu. | 477 | Ambil. | 560 | Anbiv. | 643 | | |
| Ahwus. | 395 | Alesa. | 478 | Amboe. | 561 | Anbow. | 644 | | |
| Ahyot. | 396 | Alevs. | 479 | Ambup. | 562 | Ancab. | 645 | | |
| Ahzic. | 397 | Alewde. | 480 | Amcag. | 563 | Ancen. | 646 | | |
| Ahzob. | 398 | Alfav. | 481 | Amchin. | 564 | Ancix. | 647 | | |
| Ajabo. | 399 | Alfew. | 482 | Amcoek. | 565 | Andam. | 648 | | |
| Ajadl. | 400 | Alfic. | 483 | Amcub. | 566 | Anded. | 649 | | |
| Ajaeb. | 401 | Alfob. | 484 | Amefaf. | 567 | Andik. | 650 | | |
| Ajahe. | 402 | Alfry. | 485 | Amede. | 568 | Andof. | 651 | | |
| Ajaf. | 403 | Alfx. | 486 | Ameti. | 569 | Andur. | 652 | | |
| Ajaks. | 404 | Algex. | 487 | Amjeja. | 570 | Anecs. | 653 | | |
| Ajapa. | 405 | Algiv. | 488 | Ameli. | 571 | Aneda. | 654 | | |
| Ajasu. | 406 | Algow. | 489 | Amens. | 572 | Aneem. | 655 | | |
| Ajeaz. | 407 | Alima. | 490 | Amelol. | 573 | Aneho. | 656 | | |
| Ajeca. | 408 | Alipo. | 491 | Amierz. | 574 | Anelo. | 657 | | |
| Ajedu. | 409 | Alium. | 492 | Ameto. | 575 | Aneog. | 658 | | |
| Ajeep. | 410 | Aljag. | 493 | Amfad. | 576 | Aneru. | 659 | | |
| Ajeim. | 411 | Aljin. | 494 | Amfec. | 577 | Anest. | 660 | | |
| Ajeni. | 412 | Aljok. | 495 | Amfov. | 578 | Anfap. | 661 | | |
| Ajeos. | 413 | Aljub. | 496 | Amfus. | 579 | Anfox. | 662 | | |
| Ajeul. | 414 | Alkaz. | 497 | Amgay. | 580 | Anfud. | 663 | | |
| Ajezo. | 415 | Alkek. | 498 | Amgil. | 581 | Angev. | 664 | | |

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| Code Word | No. |
|-----------|-----|-----------|-----|-----------|-----|-----------|------|
| Angib. | 665 | Apgom. | 749 | Aswep. | 833 | Atpid. | 917 |
| Angoc. | 666 | Apgug. | 750 | Aswos. | 834 | Atpor. | 918 |
| Angup. | 667 | Apham. | 761 | Asyok. | 835 | Atpre. | 919 |
| Anhoy. | 668 | Aphed. | 752 | Asyub. | 836 | Atraf. | 920 |
| Anial. | 669 | Aphik. | 753 | Aszak. | 837 | Atreg. | 921 |
| Anier. | 670 | Aphof. | 754 | Aszid. | 838 | Arit. | 922 |
| Anifo. | 671 | Aphur. | 755 | Aszor. | 839 | Atrol. | 923 |
| Anine. | 672 | Apidy. | 756 | Aszuz. | 840 | Atruk. | 924 |
| Aniop. | 673 | Apigs. | 757 | Atabs. | 841 | Atseb. | 925 |
| Anirm. | 674 | Areji. | 758 | Atack. | 842 | Atshe. | 926 |
| Anjat. | 675 | Arene. | 759 | Ataju. | 843 | Atsif. | 927 |
| Anjef. | 676 | Areop. | 760 | Ataka. | 844 | Atsoz. | 928 |
| Anjug. | 677 | Areun. | 761 | Atald. | 845 | Atspa. | 929 |
| Ankac. | 678 | Arezu. | 762 | Atamp. | 846 | Atsuv. | 930 |
| Ankez. | 679 | Arfax. | 763 | Atang. | 847 | Attef. | 931 |
| Ankig. | 680 | Arfem. | 764 | Atarc. | 848 | Attom. | 932 |
| Anmar. | 681 | Arfog. | 765 | Atavo. | 849 | Attug. | 933 |
| Anmiz. | 682 | Argad. | 766 | Atazy. | 850 | Atuch. | 934 |
| Anmod. | 683 | Argec. | 767 | Atbea. | 851 | Atudy. | 935 |
| Anmuf. | 684 | Argov. | 768 | Atbib. | 852 | Atuko. | 936 |
| Annan. | 685 | Argus. | 769 | Atbon. | 853 | Atulf. | 937 |
| Annet. | 686 | Arnak. | 770 | Atbro. | 854 | Atumi. | 938 |
| Anocu. | 687 | Arnid. | 771 | Atbut. | 855 | Atuoc. | 939 |
| Anoes. | 688 | Arhor. | 772 | Atcar. | 856 | Aturd. | 940 |
| Anofi. | 689 | Arhuz. | 773 | Atciz. | 857 | Atuse. | 941 |
| Anoip. | 690 | Ariaf. | 774 | Atcod. | 858 | Atvel. | 942 |
| Anomy. | 691 | Aride. | 775 | Atcuf. | 859 | Atyab. | 943 |
| Anona. | 692 | Arili. | 776 | Atday. | 860 | Atyen. | 944 |
| Anoon. | 693 | Arins. | 777 | Atdil. | 861 | Atzal. | 945 |
| Anope. | 694 | Ariol. | 778 | Atdot. | 862 | Atzer. | 946 |
| Anoro. | 695 | Aripy. | 779 | Ateax. | 863 | Atzop. | 947 |
| Anout. | 696 | Arisl. | 780 | Ateco. | 864 | Atzun. | 948 |
| Anipay. | 697 | Arito. | 781 | Atega. | 865 | Avade. | 949 |
| Anpew. | 698 | Arwip. | 782 | Atehi. | 866 | Avait. | 950 |
| Anpic. | 699 | Arwon. | 783 | Atexox. | 867 | Avaja. | 951 |
| Anpob. | 700 | Arwut. | 784 | Ateps. | 868 | Avali. | 952 |
| Anpux. | 701 | Aryam. | 785 | Aterb. | 869 | Avans. | 953 |
| Anrel. | 702 | Aryed. | 786 | Atesh. | 870 | Avaoi. | 954 |
| Ansey. | 703 | Aryof. | 787 | Ateve. | 871 | Avapy. | 955 |
| Anuha. | 704 | Arzib. | 788 | Atfas. | 872 | Avato. | 956 |
| Anuil. | 705 | Arzoc. | 789 | Atfek. | 873 | Avauk. | 957 |
| Anule. | 706 | Arzup. | 790 | Atfir. | 874 | Avbax. | 958 |
| Anuot. | 707 | Asaed. | 791 | Atfum. | 875 | Avbem. | 959 |
| Anurs. | 708 | Asafs. | 792 | Atgam. | 876 | Avbog. | 960 |
| Anusi. | 709 | Asclo. | 793 | Atged. | 877 | Avcav. | 961 |
| Anvep. | 710 | Ascra. | 794 | Atgik. | 878 | Avcew. | 962 |
| Anvim. | 711 | Asdas. | 795 | Atgof. | 879 | Avcic. | 963 |
| Anvos. | 712 | Asdum. | 796 | Atgur. | 880 | Avcob. | 964 |
| Anvul. | 713 | Asemo. | 797 | Atnaz. | 881 | Avcry. | 965 |
| Anweb. | 714 | Asesk. | 798 | Atthy. | 882 | Avdaz. | 966 |
| Anwif. | 715 | Aseus. | 799 | Attha. | 883 | Avdep. | 967 |
| Anwoz. | 716 | Asewa. | 800 | Atthu. | 884 | Avdim. | 968 |
| Anyor. | 717 | Asfiv. | 801 | Athep. | 885 | Avdos. | 969 |
| Anyuz. | 718 | Asgem. | 802 | Athim. | 886 | Avdul. | 970 |
| Anzad. | 719 | Asgru. | 803 | Athos. | 887 | Avecu. | 971 |
| Anzec. | 720 | Ashab. | 804 | Atkul. | 888 | Avefi. | 972 |
| Anzov. | 721 | Ashfu. | 805 | Atics. | 889 | Aveip. | 973 |
| Anzus. | 722 | Ashky. | 806 | Atida. | 890 | Avelin. | 974 |
| Apabe. | 723 | Ashva. | 807 | Atiem. | 891 | Avena. | 975 |
| Apaki. | 724 | Asieb. | 808 | Atife. | 892 | Aveon. | 976 |
| Apano. | 725 | Asiks. | 809 | Atino. | 893 | Avco. | 977 |
| Apaoi. | 726 | Asjaf. | 810 | Atimb. | 894 | Aveut. | 978 |
| Apark. | 727 | Asjit. | 811 | Atiog. | 895 | Avfab. | 979 |
| Appati. | 728 | Asjol. | 812 | Atist. | 896 | Avten. | 980 |
| Apauif. | 729 | Asjuk. | 813 | Ativi. | 897 | Avfix. | 981 |
| Apbak. | 730 | Askat. | 814 | Atkoy. | 898 | Avgap. | 982 |
| Apbid. | 731 | Askef. | 815 | Atl'ng. | 899 | Avgox. | 983 |
| Apbor. | 732 | Askom. | 816 | Atlin. | 900 | Avgud. | 984 |
| Apbz. | 733 | Askug. | 817 | Atlok. | 901 | Avhey. | 985 |
| Apcl. | 734 | Aslel. | 818 | Atlub. | 902 | Aviba. | 986 |
| Apcei. | 735 | Asnauk. | 819 | Atmac. | 903 | Avici. | 987 |
| Apcls. | 736 | Asnab. | 820 | Atmez. | 904 | Avihu. | 988 |
| Apcop. | 737 | Asner. | 821 | Atmig. | 905 | Avike. | 989 |
| Apcon. | 738 | Asnop. | 822 | Atmad. | 906 | Avilp. | 990 |
| Apdoy. | 739 | Asohi. | 823 | Atnec. | 907 | Aviok. | 991 |
| Apect. | 740 | Asops. | 824 | Atnov. | 908 | Aviso. | 992 |
| Apeff. | 741 | Asrev. | 825 | Atnus. | 909 | Avieb. | 993 |
| Apelu. | 742 | Asroc. | 826 | Atoc. | 910 | Avjif. | 994 |
| Apenn. | 743 | Assod. | 827 | Atoff. | 911 | Avjoz. | 995 |
| Apnob. | 744 | Assuf. | 828 | Atoi. | 912 | Avjuv. | 996 |
| Apets. | 745 | Asuac. | 829 | Atoku. | 913 | Avkak. | 997 |
| Apfey. | 746 | Asufa. | 830 | Atory. | 914 | Avkid. | 998 |
| Apgrat. | 747 | Asuls. | 831 | Atosp. | 915 | Avkor. | 999 |
| Apgef. | 748 | Asvip. | 832 | Atots. | 916 | Avkuz. | 1000 |

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